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ABSTRACT

This report, the first in a series of six reports on television advertising and children, presents the findings from a study designed to examine the impact of various advertising practices on the knowledge, attitudes, and behavior of young children. A total of 500 preschool and grade school children from both working-class and middle-class backgrounds participated in the study; over two-fifths of the sample was black. Experimental versions of advertisements were inserted into a cartoon program which was shown to the children. There were nine areas of experimental manipulations: (1) premium offer strategy (a toy offered with a breakfast food), (2) exaggerated product performance claims, (3) program characters appearing in commercials, (4) racial characteristics of the performers in the commercials, (5) rational message strategy, (6) learning about littering from public service announcements, (7) consequences of the advertising of medicine, (8) product accessory disclaimer (i.e., batteries not included), and (9) clustered versus dispersed structure of commercial presentation. A hidden camera measured the children's eye contact and reactions while they watched the program. The children were personally interviewed or placed in a play situation after viewing the stimulus tape. The findings for each of the nine experimental manipulations are presented, and the responses to the commercials by age and race are discussed. (JMB)

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EFFECTS OF TELEVISION ADVERTISING ON CHILDREN --

FIRST YEAR EXPERIMENTAL EVIDENCE

Charles Atkin

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REPORT #1

TV ADVERTISING AND CHILDREN PROJECT

THE EFFECTS OF TELEVISION ADVERTISING ON CHILDREN:

FIRST YEAR EXPERIMENTAL EVIDENCE

-- FINAL REPORT --

June, 1975

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Submitted to:

Office of Child Development
Department of Health,
Education and Welfare

Primary research assistants on this phase of the project included Akiba Cohen, Marilyn Olson, Deborah Keller, Deborah Hubbell, and Mark Miller. Dr. Eileen Earhart of the Family and Child Sciences Department served as a consultant.

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ABSTRACT

This study examines the impact of various advertising practices on the knowledge, attitudes, and behavior of young children. Experimental versions of advertisments were inserted into a cartoon program that was presented to 500 preschool and grade school children in mid-Michigan. More than two-fifths of the sample was black, and the students represented both middle- and working-class backgrounds.

There were nine experimental manipulations: in six cases, some element of an advertisment was altered to test the effect on experimental and control viewers; in two cases, children either saw or did not see a particular commercial; and half were exposed to the set of commercials in clustered format, while the other half saw them in the customary dispersed structure. A hidden camera measured eye contact and reactions while viewing, and children were personally interviewed or placed in play situations after viewing the stimulus tape. Here are the main findings for each manipulation:

(1) PREMIUM OFFER STRATEGY -- Children more often desired a breakfast food when the commercial featured a premium toy than when a premium was not mentioned; however, they were not more likely to anticipate asking their mother to buy it for them. Few explicitly mentioned the premium as a reason for wanting the product.

(2) EXAGGERATED PRODUCT PERFORMANCE CLAIMS -- Children playing with a difficult to build block set were more likely to display anger and aggression after seeing a version of a building-block commercial showing an extravagently impressive construction than a version showing a modest pile of blocks.

(3) PROGRAM CHARACTERS APPEARING IN COMMERCIALS -- Those viewing a Flintstones cereal ad more often desired the product when the ad was shown in the context of a Flintstones cartoon than a Bugs Bunny cartoon; this did not seem to be due to confusing the commercial with the content of the program, but rather a heightened identification with the program characters in the commercial.

(4) PERFORMERS' RACIAL CHARACTERISTICS -- Both races more often recalled the commercial showing white characters acting out the plot than black actors; blacks actually chose to play with the toy more often after seeing the white actors in the commercial.

(5) RATIONAL MESSAGE STRATEGY -- A rational vitamin-oriented cereal ad was readily learned and equally successful in terms of recall and desire, compared to a standard emotional presentation of the cereal.

(6) LEARNING ABOUT LITTERING FROM THE PSA -- Those who viewed the "Indian" anti-littering PSA less often exhibited littering behavior afterwards, compared to those who did not see this ad.

(7) CONSEQUENCES OF MEDICINE ADVERTISING -- Children who viewed a Dristan commercial more often indicated that they would take medicine for a cold, thought pills were more effective, and perceived higher levels of illness in society, compared to those who did not see the ad.

(8) PRODUCT ACCESSORY DISCLAIMER -- A toy commercial with an audio as well as a video superimposed disclaimer of non-included batteries produced greater awareness of this qualification but created less product desire than a video-only disclaimer.

(9) CLUSTERED VS. DISPERSED STRUCTURE OF PRESENTATION -- Slightly greater levels of commercial attention, enjoyment, learning, and desire were obtained when commercials were bunched together rather than conventionally dispersed; there were no important differences in responses to continuous vs. interrupted programming.

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THE EFFECTS OF TELEVISION ADVERTISING ON CHILDREN: FIRST YEAR EXPERIMENTAL EVIDENCE

This report describes nine experimental studies examining the impact of various advertising practices on the viewing responses, knowledge, attitudes, and behavior of young children. There are nine independent manipulations of advertising content or context that are tested in this series of investigations. The studies primarily examine pragmatic problems concerning the consequences of conventional or potential children's advertising strategies and practices. These are the basic research questions posed in the experiments:

(1) PREMIUM OFFER STRATEGY -- How does the inclusion of a premium offer in a product commercial affect children's preferences for the product?

(2) EXAGGERATED PRODUCT PERFORMANCE CLAIMS -- Can the extravagent portrayal of a toy's performance stimulate anger and aggression when high expectations are not satisfied?

(3) PROGRAM CHARACTERS APPEARING IN COMMERCIALS -- To what extent does the presentation of TV program performers in advertisments contribute to heightened desire for the product when presented in the context of the performers' program, and why?

(4) PERFORMERS' RACIAL CHARACTERISTICS -- How are black and white children affected by a commercial presenting black or white characters?

(5) RATIONAL MESSAGE STRATEGY -- What is the relative impact of information-oriented vs. emotional advertising appeals in informing and persuading children?

(6) LEARNING ABOUT LITTERING FROM THE PSA -- How much influence does the public service announcement have on children's anti-pollution attitudes and practices?

(7) CONSEQUENCES OF MEDICINE ADVERTISING -- What are the effects of an aspirin commercial on beliefs of the efficacy and speed of medicine, perceived incidence of societal illness, and orientation toward using pills for pain relief?

(8) PRODUCT ACCESSORY DISCLAIMER -- Can an audio restatement of a video superimposed disclaimer of a non-included product accessory increase awareness of this qualification, and how does this influence product preferences?

(9) CLUSTERED VS. DISPERSED STRUCTURE OF PRESENTATION -- How does the bunching of a series of commercials affect children's viewing responses, learning, and desire for advertised products, and reactions to the uninterrupted program?

The research method employed a basic two-group experimental design for each study, with half of the Ss exposed to one version of the stimulus and the other half viewing an alternate version. The methodology is described in detail in the next section.

EXPERIMENTAL STIMULUS TAPE

The experimental subjects were exposed to one of eight stimulus tapes containing entertainment material, advertisements, and news. The composition of each twenty-minute tape is outlined in Figure 1.

Structural Manipulation: The first four tapes were structured according to the pattern of a typical Saturday morning cartoon program, with a brief program introduction, two commercials, the first program segment, three more commercials, the second program segment, another commercial, and a news program with a commercial imbedded. Two tapes featured the cartoon followed by the news, while the other two displayed the news before the cartoon, to control for order effects.

This structure was employed after an analysis of Saturday morning programming layouts. Most programs used an introduction of a minute or less and three main program segments of approximately five to seven minutes each. The news program structure was identical to the current practice of the Columbia Broadcasting System children's newscasts, which have a twenty-second introduction, a thirty-second commercial, and a main program segment running slightly over one and one half minutes.

The other four tapes were manipulated to feature a "bunched" or "clustered" structure of advertisement presentation. All seven commercials were shown consecutively, either immediately preceding or following the complete program. The newscast was also displayed without a commercial interruption in these conditions. Figure 2 displays the basic structural manipulations.

Cartoon Manipulation: The entertainment content in the stimulus tapes was chosen to appeal to all of the age groups, which ranged from preschool through

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fifth grade. A list of all late afternoon and weekend children's programs was presented to 40 kindergarten and first graders and to 70 third and fourth graders who were not involved in the experiment. Popularity ratings indicated that the most liked programs with younger children included the Flintstones, Bugs Bunny, Fat Albert, Archie's TV Funnies, and Scooby Doo. The older children preferred Scooby Doo, Bugs Bunny, Fat Albert, Harlem Globetrotters, and the Flintstones.

Fat Albert and Harlem Globetrotters were eliminated because they primarily involved black characters, and it was deemed appropriate to control for this factor in the program content. Scooby Doo was not chosen because of difficulties in compressing the one hour story-line into the available program time.

Two criteria prompted the selection of the Flintstones and Bugs Bunny as the entertainment programming. First, the continuity of the two programs differs: the Bugs Bunny show contains discreet and unrelated cartoons, while the Flintstones show involves a single-theme plot that is developed throughout the course of the program. This difference in program cohension allows for an assessment of the interaction between advertising structure (bunched vs. dispersed) and content plot continuity (discrete vs. interrelated), as they affect responses to the program.

Second, the Flintstones characters are employed in commercials promoting Flintstones cereal, while Bugs Bunny characters are not. This difference allows a test of the relative impact of popular program stars promoting a product within that program and within an unrelated program. Identical versions of a Flintstones cereal ad taped off the air were inserted in the tapes featuring the Flintstones and Bugs Bunny cartoons. Thus, the second outcome of the

manipulation involves the cartoon context of this particular advertisement, as it affects responses to the cereal commercial. The script of the ad is presented in Figure 3.

Product Premium Manipulation: One within-ad manipulation examines the impact of showing a premium along with a product in a commercial. The first commercial viewed by the subjects was for Kellogg's Pop Tarts, as recorded off the air a month before the experiment. Use of an off-the-air ad as the initial advertising stimulus was deemed desirable as a device to assure children that the tape material was realistic and unadulterated.

The Pop Tarts advertisements displayed on children's programming sometimes feature a 10- to 15-second description of the premium offered in the Pop Tarts package. Other ads in this series describe only the product itself. Thus, children have been exposed to both types of advertisement for this breakfast food.

One of the commercials ending with a premium promotion was taped and shown in half of the conditions. The other conditions displayed the same ad with the premium offer edited out (Figure 4). The key dependent variable for this manipulation is the subjects' desire for Pop Tarts.

Product Performance Claim Manipulation: The next variation involves the degree of extravagance of product performance displayed in the commercial. The ad was specially-produced for the experiment, showing the Blockhead building-block toy in two conditions. In one version, a boy and girl built a high and complex structure with the blocks. The modest version showed the same children constructing a small and simple pile of blocks. About 10 seconds of the video stimuli differ between the two conditions. The audio

script emphasized the importance of successfully building a winning tower in the extravagant version. The other script focused on the fun derived from playing with Blockhead (Figure 5).

Subjects exposed to the modest vs. extravagant advertisement can be compared to determine how this manipulation affects expectations of performance and enjoyment, and display of anger and aggression while playing with the blocks.

Performer Race Manipulation: The third commercial presents a script that is performed by either a pair of black actors or white actors. This specially-produced advertisement shows a boy and girl playing with a Tumblebug racing toy. After the commercial was taped with white children actors, two black children performed the same behaviors with the toy. The voice-over audio track was identical for each condition (Figure 6).

This manipulation is not expected to have any main effects, but may interact with the race of subject to affect a number of dependent variables.

Rational-Emotional Theme Manipulation: Fourth, half of the subjects viewed a cereal commercial with a traditional "emotional" theme claiming that the cereal provides energy to become a 'great swimmer' and to 'do great in school.' The other half saw a "rational" information-oriented ad describing the four vitamin nutrients 'A,B,C,D' and how they give energy to 'work hard' in school. This audio and video manipulation occurs during about 10 seconds of a specially-produced commercial with other elements controlled (Figure 7).

In order to reduce incredulity due to deviations from current advertising campaigns, the experimental cereal was Food Club Frosted Flakes, an unadvertised private brand unfamiliar to most subjects. The main dependent

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variables are desire for the cereal and amount of information learned about this relatively unknown product.

Nonprescriptive Drug Manipulation: The fifth slot featured a videotaped reproduction of a conventional Dristan decongestant advertisement in half of the conditions. The commercial demonstrates how a bedridden mother suffering from a bad cold-flu-fever almost instantly feels better due to Dristan's help (Figure 8).

Children who observe this particular off-the-air ad can be compared to control subjects who do not see it, along several dimensions of perceptions about sickness, efficacy of common nonprescription drugs, and rapidity of general problem-solving.

Anti-Pollution PSA Manipulation: The half of the subjects not viewing the drug ad were shown an off-the-air tape of a public service announcement against littering and pollution. The stimulus was the famous Indian PSA depicting a brave paddling through polluted waters and crying after seeing highway litter (Figure 9). Pretesting indicated that many children were familiar with this message, so it served mainly as a reinforcing reminder not to litter.

Viewers can be compared to nonviewers in terms of their littering behavior and pollution attitudes immediately after the program tape finishes.

Accessory Disclaimer Manipulation: The final commercial involves the prominence of an announcement disclaiming the non-inclusion of a product accessory. Since "batteries not included" is the most frequent disavowal in children's advertising, this was chosen for the operationalization. A Mattel Vertibird toy helecopter commercial was taped off the air for the experiment.

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The original commercial included a brief "batteries not included" label superimposed at the bottom of the picture. This was shown in half the conditions. The other half additionally presented a voice-over statement of this phrase at the end of the commercial (Figure 10). Thus, awareness of this disclaimer can be compared between audio-visual vs. visual-only versions of the commercial.

News Complexity Manipulation: Each stimulus tape included a two-minute children's news program. A content analysis of the CBS "In the News" series indicated that these newscasts had a rather difficult readability score, averaging at about the seventh grade level. Since the audience for these shows is in the 3-11 age range, a simplification of the content may produce greater information acquisition.

To avoid content-specific findings, two different types of news topics were selected. Based on the content analysis, two basic themes were identified: "soft" feature stories about people, animals, and events of particular interest to children; and "hard news" stories dealing with significant current developments in the political, economic, and social arenas in the United States and other countries. One newscast was randomly selected to represent each of these categories. Time-bound stories were excluded from consideration.

The news programs were taped off the air several weeks before the experiment began. The audio track of each story was manipulated, while the video remained the same in both conditions. The complex version featured the script used in the original CBS newscast, while the simplified condition presented a revised script with shorter sentences and more common words. This manipulation is described more fully in the Television News Programming report.

EXPERIMENTAL PROCEDURES

The stimulus tapes were played on a conventional television monitor to groups of four children in five elementary schools and two preschools in Lansing. Most students in each school participated, with their parents' written permission. The schools were carefully chosen to maximize the proportion of black children in the experiment, and to represent both working and middle class neighborhoods.

The basic procedures were developed over several months of pretesting with preschool, first, and fourth grade children. The students were escorted from their classroom to a spare room in the school. Usually two boys and two girls from the same grade were tested together.

The physical layout of the prototypic experimental room is displayed in Figure 11. Subjects were seated in four seats about 10 feet in front of the television monitor. A hidden television camera in a box next to the TV set focused on the subjects in the two middle chairs.

The camera was connected to a small television monitor located several feet behind the subjects. Two coders unobtrusively observed both of the central subjects on the monitor, and listened to their comments directly. A third experimenter ran the equipment, maintained order, and settled coding conflicts between the primary raters.

One of the eight stimulus tapes was randomly selected for showing to each group. The tapes were played on a videotape machine behind and to the side of the TV monitor.

As the subjects were seated and settled, the tape began running with a routine station-break identification. The program material appeared after several seconds, in the sequence indicated in Figure 2.

While the subjects viewed the tape, the coders rated attention and affective responses during each of fourteen 30-second intervals: all seven commercials, four news segments (the introduction and three subdivisions of the main portion), and three cartoon samplings (the third minute of the initial portion of cartoon content, and the first and third minutes of the other half of the cartoon programming). Figure 12 displays the rating form used with tape one; the full set of eight forms is presented in the appendix.

Degree of attention was rated along a five-step scale using these criteria:

Full attention -- almost total eye contact (29-30 seconds) with nearly no distraction

Close attention -- predominant eye contact (21-28 seconds) with occasional distraction

Partial attention -- half-time eye contact (10-20 seconds) with frequent distraction

Slight attention -- occasional eye contact (2-9 seconds) with predominant distraction

No attention -- almost never eye contact (0-1 seconds) with nearly total distraction

In addition, coders specifically measured the amount of time taken to attain attention to the second half of the cartoon presentation. This allowed comparison of the amount of programming missed in the bunched vs. dispersed advertising structure.

Affective responses were judged along four evaluative dimensions: observed enjoyment and irritation, overheard verbalizations, and observed change in interest.

Degree of enjoyment and irritation were both rated on three-step scales:

High enjoyment -- intense display of pleasure

Moderate enjoyment -- mild pleasure displayed

Low enjoyment -- no discernable pleasure shown

High irritation -- intense display of disliking

Moderate irritation -- mild disliking displayed

Low irritation -- no discernable disliking shown

Verbalizations were coded according to topic and valence, with a mark recorded in one of these categories:

Content-related verbalizations -- comments regarding the product featured in a commercial or the subject matter presented in the news and cartoon.

Delivery-related verbalizations -- comments specifically pertaining to the mode of presentation of the commercial or programming, including music, acting, phraseology, characterizations, camera techniques, etc.

Unrelated verbalizations -- comments irrelevant to the stimulus materials, such as statements or questions about the physical environment, the equipment, or the experimental personnel.

These verbalizations were classified as being positive, neutral, or negative. The total number of each type of comment was then tallied.

Change in interest displayed in the first five seconds of the Flintstones cereal advertisement was gauged against the baseline level of interest in the preceding cartoon programming to determine differential

changes from Bugs Bunny vs. Flintstones. Interest change was also measured during the commercial slot following the end of the cartoon presentation. This variable was trichotomized in the following manner:

Increased interest -- greater involvement in the commercial than previous programming, as evidenced by smiles, positive verbal comments, clapping, etc.

No interest change -- level of previous involvement maintained.

Decreased interest -- lesser involvement in the commercial than previous programming, as evidenced by frowns, negative comments, figiting, etc.

Subjects were generally attentive and well-behaved during the playing of the stimulus tape. None evidenced awareness of the hidden camera, and the presence of coders in the back of the room didn't seem to sensitize subjects' behavior. However, the lack of diversions in the experimental room did constrain the lattitude of alternative activities. Unlike home viewing, there was no opportunity to leave the room during commercial breaks.

At the end of the tape, all subjects were offered a piece of candy wrapped in paper (i.e., tootsie roll, chocolate kiss, or taffy). The coders observed how each child disposed of the wrapper as he moved from the viewing chair to the post-viewing activity area.

Post-viewing measurement design

Two separate methods of data gathering were employed to assess the impact of the experimental manipulations on desire for products, learning, and play behavior. Half of the subjects responded to detailed interviews primarily involving their learning of news and advertising content. The other half underwent a product selection procedure to index desire for

advertised foods and toys, and were observed at play with one of the toys. One half of each group had been monitored for responses while viewing.

Of course this system did not provide complete data from all subjects on all dependent variables. This approach was used for several reasons. It was much more efficient, allowing for careful measurement of a limited number of variables without exhausting the energies of the subjects. Approximately 10 to 15 minutes of post-viewing activity were required. In addition, measurement on some product selection items would have sensitized subjects on the interview learning items, or visa versa. Finally, the large number of subjects run in the experiment produced sufficient cell sizes for statistical testing, even though only half were measured on any particular variable.

Interview Procedures

Two subjects, one who had been observed by coders and the other who was not under observation, were led from the room to be individually interviewed by an experimental assistant. The interview ranged over a number of topics.

Liking. The interview began with questions about the child's liking of the cartoon, news story, and commercials:

> First, we want to find out how much you liked watching this TV show...
>
> Did you like the cartoon(s)? IF YES: Did you like it a little bit or a lot?
> Did you like the news story? IF YES: Did you like them a little bit or a lot?
> Did you like the commercials? IF YES: Did you like them a little bit or a lot?

News learning. Questioning then turned to evaluation and recall of the content of the news story the child had seen. These items are described in the Television News Programming report.

Advertising learning. Subjects were next asked to recall the various products advertised in the commercials, followed by specific questions about each advertisement. The subjects were briefly reminded about the key features of each commercial before the follow-up questions. (Figure 13)

If the subject was exposed to the Indian anti-pollution message, the interviewer sought to discern the level of understanding of the basic theme:

> One of the things you just saw on the program was an Indian in a canoe. Why did the Indian cry at the end?

In conditions featuring the Flintstones cartoon, subjects were asked to describe the plot of the cartoon:

> Can you tell me what happened to Fred in the Flintstones cartoon?

For each question, the interviewer judged the adequacy of the answer. A pollution-relevant response was scored as correct for the Indian commercial. The completeness of the Flintstone description was rated along a seven-step scale.

Product Selection and Play Procedures

The other two subjects participated in the product selection and play phase of the study. An experimental assistant led them to a different part of the room containing a previously hidden table with two comparable toys (Tumblebug and Spill the Beans) set up at the far end and Blockhead building blocks arranged at the other end.

Behavioral preference. One subject was directed to play with the Tumblebug or Spill the Beans, and the assistant recorded which toy he first selected.

Verbal preferences. While the first subject played, the assistant talked with the other child about his product preferences and play expectations. The subject was successively shown three boxes of breakfast food (Pebbles, Foodclub, and Poptarts), and asked how much he would like to eat each. Then the interviewer probed which ones the child actually intended to ask his mother to buy. This was followed by a desire item for the Vertibird toy helecopter. Figure 14 presents this line of questioning.

Play expectations. The subject was also asked about his expectations for play with the Blockhead toy, to determine both the amount and kind of enjoyment he anticipated:

> How much fun do you think it would be to play with the Blockhead toy?
> Would you say alot of fun, a little fun, or not much fun?
>
> Remember the two kids playing with Blockhead in the commercial? Do you believe it is as much fun as they showed it would be?
>
> Do you think you could build a tower as high as the kids in the commercial, or do you think yours would be higher or lower than the one on TV?

The product preference interviews required only a few minutes. When completed, the interviewed child was directed to select and play with one of the toys while the first subject was questioned about product desires.

Hostile play behavior. Next, the pair of subjects was told to play with the Blockhead blocks. In order to maximize the potential for overt

displays of hostility while playing, they were told to take turns piling the blocks on a small base block. This small base provided a more difficult and frustrating balancing task, and the interpersonal nature of the play provided a possible source of friction and an accessible target for social aggression.

The experimental assistant observed and recorded the degree of anger and aggression during a five minute play period. These rating scales were employed:

Anger -- display of irritation or indications of being upset or mad. ASK: Does it make you mad when you can't build it right?

High -- extensive or intense display of anger

Moderate -- limited display of anger, mild irritation

Low -- no manifestations of anger

Verbal aggression -- verbal act intended to injure target person or object.

High -- heavy cursing, loud threats of an extensive nature

Moderate -- limited verbal attack

Low -- no manifestations of verbal aggression at all

Physical aggression -- overt act intended to injure target person or object.

High -- extensive physical aggression, such as hitting, or throwing blocks

Moderate -- slight pushing, shoving, or grappling

Low -- no manifestation of physical aggression at all

EXPERIMENTAL SUBJECTS

A total of 500 Ss participated in the experiment. Ss were drawn from five elementary schools and two preschools in the Lansing area. Figure 15 lists the number of children from each school, along with a description of the basic type of neighborhood served by the school. It can be seen that about two-fifths of the sample come from lower-income areas in the inner-city core of Lansing; another one-third live in predominantly lower middle class neighborhoods near the central city; the other quarter reside in wealthier suburban districts several miles from downtown. Thus, the sample is purposively skewed to over-represent children from less advantaged backgrounds.

The schools were carefully selected to provide a substantial proportion of black students. Although Lansing has only a 15% black population, the final sample contained 42% black children. Black children tended to be younger (Figure 16).

The ages of the Ss ranged from 3 to 10, as students were chosen from the preschool through fifth grade. While there were only 52 preschool children, fully 57% of the sample was seven years old or younger due to heavy sampling in the kindergarten and first grade. Girls slightly outnumbered boys, as 53% of the sample was female.

Half of the Ss were interviewed and the other half were observed while playing with toys and choosing products. Half of each of these groups were monitored on the remote television screen as they viewed the stimulus tape. Figure 17 displays the distribution of Ss into these measurement conditions. The number of Ss in each of the experimental treatment conditions is also presented, along with the N's for intersection of treatment and measurement conditions. Due to oversampling for stimulus tapes 1 and 3, there were slightly more Ss viewing the odd numbered tapes (containing Poptarts with premium, Blockhead with extravagent claim, Flintstones Cereal

within the Flintstones cartoon, Tumblebug with white actors, Frosted Flakes with rational theme, Vertibird with audio-video disclaimer, and the Dristan ad). than the even numbered tapes, which featured the opposite content manipulations.

Figure 17 also shows the age and race distributions, indicating that Ss with these key characteristics fell proportionately into the measurement conditions. The age and race subgroups also were distributed into treatment conditions in approximate proportion to their overall size. Rather than laboriously describing these varying cell N's in each table in the findings section, Figure 17 can be used as a general reference to the number of Ss in each condition.

RESULTS

The findings for each of the manipulations will be presented separately in this section. Each sub-experiment is introduced with a brief description of the idea being tested, followed by descriptions of the results on attention-irritation-enjoyment-verbalization responses during viewing, and the learning-desire-behavior variables measured after viewing. The text is accompanied by several tables presenting the data on each study. The first table in each case displays the viewing response data, while the next table presents various post-viewing data. The subsequent tables provide age and race interaction data where relevant. A final set of results describes the main effects of age and race on the key advertising variables.

The findings are presented in this order:

(1) PREMIUM OFFER STRATEGY: Poptarts commercial

(2) EXAGGERATED PRODUCT PERFORMANCE CLAIMS: Blockhead commercial

(3) PROGRAM CHARACTERS APPEARING IN COMMERCIALS: Flintstones commercial

(4) PERFORMERS' RACIAL CHARACTERISTICS: Tumblebug commercial

(5) RATIONAL MESSAGE STRATEGY: Frosted Flakes commercial

(6) LEARNING ABOUT LITTERING FROM THE PSA: Indian commercial

(7) CONSEQUENCES OF MEDICINE ADVERTISING: Dristan commercial

(8) PRODUCT ACCESSORY DISCLAIMERS: Vertibird commercial

(9) CLUSTERED VS. DISPERSED STRUCTURE OF PRESENTATION: all commercials

(10) RESPONSES TO COMMERCIALS BY AGE AND RACE: all commercials

Two basic types of statistical analysis are presented for each of these comparisons. The differences on attention-irritation-enjoyment measures between manipulated conditions are compared with t-tests; the tables present the t value and the exact significance level for that value. The main effects of the experimental treatment on knowledge, attitude and behavior are examined with chi-square tests; the tables present the chi-square value, the degrees of freedom, and the exact significance level. More important than these significance tests are the pattern of findings on the descriptive statistics (means and percentages) which are displayed in the tables and described in the text.

(1) PREMIUM OFFER STRATEGY

Many advertisements directed to children seek to increase interest in the product by promoting a premium that accompanies the purchase. This experiment examines the impact of a premium offer by comparing a version of a Poptarts commercial featuring a "Milton Puzzle" premium with a control version that omitted the premium portrayal.

Observed responses. Table 1a shows no significant difference in attention between the version of the advertisement with and without the premium offer. Older children paid slightly more attention to the commercial with no premium. Irritation did not differ according to treatment. Enjoyment was observed somewhat more often in the premium condition. Many more positive verbalizations about the product were expressed in the premium version, although unrelated comments were also more frequent in that condition.

Learning. Recall of the product did not differ significantly between the two treatments (Table 1b). Subjects viewing the puzzle offer were much more likely than control Ss to cite premiums as a reason for getting Poptarts (6% vs. 1%), but the low rate of mention indicates that the premium factor was much less salient than other product attributes. Older Ss were twice as likely as younger Ss to refer to premiums after viewing the offer in the commercial (Table 1c).

Desire. Ss viewing the commercial featuring the premium wanted to eat Poptarts somewhat more than those seeing the commercial without the offer; 83% vs. 72% said they would like to have the product "a lot" (Table 1b). There was no difference in actual intention to ask the mother to buy Poptarts. Impact of the premium on liking occurred mainly among the younger Ss; conversely, older children were more affected on the asking variable (Table 1c).

Discussion. These findings suggest that promotion of a product with a premium has a modest advantage over the same message showing the product alone. Children like the commercial somewhat more when a premium is featured, and more often say that they want the product. However, the premium offer made no difference in intention to request the product, perhaps due to a realistic appraisal of the mother's role in product decisions.

(2) EXAGGERATED PRODUCT PERFORMANCE CLAIMS

In appealing to the child audience, many toy advertisers tend to make exaggerated or extravagant claims of the toy's performance. While this may produce a greater desire to buy the product, it may also increase the chance that the child will be disappointed, frustrated and even indirectly stimulated to aggression as a result of high expectations that are not satisfied. Half of the subjects saw a modest version of a Blockhead commercial where a rather unimpressive structure was constructed with the building blocks, while the others viewed the same basic commercial featuring an extremely difficult to achieve tower of blocks.

Observed responses. The extravagant version of the commercial attracted much greater attention than the modest version among both older and younger Ss (Table 2a). Irritation with the commercial was detected somewhat more often when the

modest pile of blocks was presented; this difference occurred solely in the younger subgroup. Enjoyment was also expressed somewhat more often in the modest treatment, with the younger children again accounting for the difference. The pattern of verbalizations was not substantially different between the two conditions.

Learning. There was considerably greater recall of the commercial among Ss who viewed the modest version (Table 2b). Twice as many remembered the brand name of the product as those viewing the extravagant portrayal, a significant difference.

Expectations. Table 2b shows a mixed pattern of expectations. While the Ss exposed to the extravagant claim thought that the Blockhead toy would be slightly less fun to play with, they were somewhat more likely to estimate that they could outperform the actors in building a tower; two thirds thought they could build a higher tower. The older children were particularly likely to expect that the toy would be fun in the modest condition, while the younger children were slightly more impressed by the extravagant portrayal (Table 2c). The younger children expected to build a higher tower, especially those viewing the extravagant performance. The older children who saw the extravagant building tended to think that their tower would be lower.

Aggressive behavior. The key dependent variables involve forms of hostile behavior observed by the experimental assistants while the Ss played with the blocks after the viewing was completed. Children who attempted to build impressive structures were generally unsuccessful. In the extravagant condition, there was somewhat greater display of anger, verbal aggression and physical aggression (Table 2b). Overall, 28% showed some hostility, significantly more than the 18% rate among those who had watched the modest version of the Blockhead commercial. Both older and younger subgroups were moderately more aggressive in the extravagant condition.

Discussion. The extravagant display of a toy's performance led to more attention to the commercial but less recall of the brand name. Viewers of the extravagant version, particularly older children, were less likely to expect that the building block toy would be fun; perhaps they were restraining their anticipation of enjoyment because of the difficulty of matching the actors' success. Nevertheless, most of the younger children viewing the extravagant version thought they could outperform the actors; the older children were more conservative in this condition.

Apparently those in the modest performance treatment expected to achieve their greater fun by means other than outdoing the actors, since just over half thought they could build a tower higher than the small pile in the commercial. The key factor seems to be the nature of the goal: the group in the extravagant condition was seeking fun by building high and complex towers, while the other group sought enjoyment from constructing simpler structures with the blocks.

The difference in hostility expressed while actually playing with the blocks may reflect this differential expectation frame. The group who had seen the exaggerated high tower displayed more aggressive behavior than the children who had been exposed to the modest version of the commercial. This provides some evidence supporting contentions that impossible expectations of achievement and enjoyment

may be generated by extravagant portrayals of a product, which may contribute to dissatisfaction and aggression when the child isn't able to perform as successfully as actors in a commercial.

(3) PROGRAM CHARACTERS APPEARING IN COMMERCIALS

Many observers have questioned the practice of using television program performers in child-oriented commercials, claiming that young viewers might be unduly influenced by entertainment characters with whom they identify. In particular, the NAB Television Code prohibits the presentation of such advertisements within or contiguous to the program featuring the character. This experiment investigates the effectiveness of a Flintstones "Pebbles" cereal advertisement in the context of either a Flintstones cartoon or a Bugs Bunny cartoon. Comparisons are also drawn between conditions presenting the ad within the Flintstones cartoon vs. outside the cartoon in a cluster of commercials.

Observed responses. Table 3a shows that Ss paid slightly more attention to the Flintstones cereal ad in the treatment where the Flintstones cartoon was also shown. Attention was significantly greater in the cluster than when the ad immediately followed the first half of the cartoon. Irritation levels didn't differ by treatment. Slightly more enjoyment was observed when the commercial appeared with the Flintstones cartoon; the conditions of greatest enjoyment were the combination of the cluster with the Flintstones cartoon. Verbalizations were expressed to the same extent in each cartoon context.

Learning. There was no difference in recall of the commercial between the two contextual conditions; most Ss did not spontaneously remember it (Table 3b). When specifically asked if they saw the Flintstone characters eating cereal on the TV tape, significantly fewer could remember this in the condition featuring the Flintstones cartoon. One-fourth of those who recalled seeing the Flintstones eating cereal thought it was in the cartoon rather than in the commercial. Table 3c shows that it was primarily the young children who mistakenly perceived the commercial as part of the cartoon. Those viewing the ad contiguous to the cartoon were actually less likely to perceive the eating as part of the cartoon, compared to Ss viewing it in a cluster (Table 3d).

Desire. In terms of eating preferences, Ss were significantly more favorable toward "Pebbles" cereal when the ad appeared on the same tape as the Flintstones cartoon (Table 3b). This effect occurred exclusively among the younger Ss: almost three-fourths wanted the cereal "a lot" when viewing the ad in the context of the Flintstones cartoon, compared to 45% watching it in the Bugs Bunny context. Similar differences were obtained on the measure of intention to ask for the cereal in the food store.

Among the Ss exposed to the Flintstones program, those viewing the commercial in a cluster were somewhat more likely to desire the product than the Ss who saw the advertisement contiguous to the cartoon (Table 3d).

Discussion. The findings show that some children, particularly the younger ones, may have been confused about whether the cereal-eating was portrayed in the cartoon or the advertisement. However, the more accurate labeling of the

message as a commercial in the dispersed commercial structure indicates that the contiguity of program and advertisement is not a major explanation. Perhaps the mere presentation of program characters in their typical program setting during a commercial is sufficient to mislead younger viewers.

The impact on product desire was clearly greater when the commercial was accompanied by the corresponding cartoon than when presented with an unrelated cartoon. The slightly greater impact in the clustered rather than dispersed condition suggests that the nearby presence (rather than direct juxtaposition) of the program is sufficient to increase the effectiveness of a commercial featuring program characters. The combination of the program and commercial stimulates more interest in the product than the commercial in isolation, perhaps due to the program reinforcing the child's liking for the characters that appear in the advertisement.

(4) PERFORMERS RACIAL CHARACTERISTICS

While advertisers have increasingly presented minority children as performers in commercials, there is little systematic evidence concerning the impact of the racial variable on white and black child viewers. Half of the Ss saw a "Tumblebug" toy commercial featuring white actors, and the other half saw the same script acted by black performers.

Observed responses. There were no important overall differences in response to the white vs. black actors in terms of attention, irritation, enjoyment, and verbalizations (Table 4a). Older children paid more attention and displayed more enjoyment when viewing the white performer version of the commercial. The only interaction by race of Ss was the non-significant tendency for white children to be more attentive to white actors; in general, whites and blacks exhibited similar patterns of response to the two versions of the ad.

Learning. There was somewhat greater recall of the Tumblebug commercial portraying the white actors (Table 9b). While few children referred to race as a reason for wanting or not wanting to buy Tumblebug, two-thirds of the racial references occurred in the black performer condition; black Ss and older Ss were twice as likely to mention race as white Ss (Table 9c and 9d). When directly asked to describe the performers, only one of every eight Ss mentioned racial characteristics: this occurred mostly in the black actor treatment, and mostly by the black Ss.

Desire. Table 9b shows that 80% of the viewers in the white actor condition chose to play with the Tumblebug rather than the alternative "Spill the Beans" toy, compared to 73% in the condition featuring the black actors. There was no major difference among the white Ss, but blacks actually selected the toy more often after seeing the white actors (Table 9d). Older Ss were much more likely to choose the Tumblebug in the white performer condition, while the younger Ss did not differ by treatment (Table 9c).

Discussion. The race of the performers playing in the toy commercial did not have a major influence on responses during viewing, nor did many Ss exhibit an awareness of the race of the actors. Nevertheless, children chose to play

with the Tumblebug somewhat more often in the white actor condition; this was due to the clear tendency for black Ss to prefer the toy when demonstrated by the white rather than black performers. The preference for the toy in the white actors condition was restricted to the older age group. Younger children appear to be unaffected by the race of the performers.

(5) RATIONAL MESSAGE STRATEGY

Most advertising directed at children shuns information-oriented rational themes in favor of more "emotional" appeals. The rational message strategy emphasizes well-reasoned arguments for selecting a product, such as the vitamin content of a cereal; the emotional approach features such non-nutritional attributes as the sweetness or fun of eating a cereal. In this experiment, one group viewed a cereal commercial describing the four vitamin nutrients of the product, while the others saw a typical version claiming that the cereal tasted good and would help them to succeed in sports.

Observed responses. Table 5a shows that attention was slightly greater for the rational version of the commercial, mostly among older children. Irritation was not observed to differ between the two conditions. While enjoyment levels were identical overall, younger children tended to enjoy the emotional appeal and older children enjoyed the rational appeal. The rational theme engendered more relevant verbalizations, both positive and negative.

Learning. The rate of recall of the commercial was the same in each treatment (Table 5a). The Ss tended to learn the content that was presented in the version that they viewed: the Ss in the rational condition described the vitamins and the energy to perform in school, while those in the emotional condition spoke of more generalized healthful benefits and the energy to perform in swimming. Table 5b shows that the older children were more likely to display specific knowledge from the commercial. Although each treatment group was equally aware that the cereal had lots of vitamins, Ss who saw the rational version could name considerably more specific vitamins. Again, older Ss in the rational treatment learned far more: 57% identified all four vitamins, compared to 15% of the younger children.

Desire. The rational theme produced slightly greater desire for the product in terms of liking and intention to request it, although the differences were insignificant (Table 5b). The older children were affected on the liking variable, while the younger children accounted for the difference on the intent variable.

Discussion. These findings demonstrate that a rational message strategy can be at least as effective as a more conventional emotional approach in achieving favorable responses from children. In addition, the informational content featured in this type of advertising theme is readily learned by children, particularly the older ones. This evidence indicates that substantive attributes of a product, such as the vitamin qualities of cereal, can contribute to young viewers' knowledge and still persuade them to want the project.

(6) LEARNING ABOUT LITTERING FROM THE PSA

A variety of public service announcements dealing with littering, smoking, nutrition and seatbelts are shown during children's TV viewing hours. This experiment examines the effects of exposure to one such advertisement: the anti-pollution message featuring an Indian who is saddened by litter and industrial wastes. One group viewed the PSA and a control group viewed an unrelated commercial in this time slot.

Observed responses. Since the experiment did not manipulate two versions of this particular message, explicit comparisons during viewing are not feasible. Rather than examine the response variables in isolation, the average response to all other commercials are used for comparative purposes. Table 6a shows that the attention level was somewhat lower than for other advertisements in both age groups. Somewhat greater than average irritation was displayed at both age levels. Enjoyment was slightly lower than average for both younger and older children. Verbalizations relevant to the message were observed twice as often as for other commercials, as 20% of the Ss were stimulated to discuss the PSA.

Learning. Most children in the exposed group correctly explained the theme of the Indian PSA (Table 6b), with 76% of the younger Ss and 98% of the older Ss explaining why the Indian was saddened (Table 6c).

Attitude. The exposed group evidenced slightly greater concern about the littering problem, although most children in each experimental condition thought that it was "really important" for people to stop littering. There was no interaction by age level.

Behavior. After the viewing session, all Ss were offered a piece of wrapped candy and their disposal of the wrapper was unobtrusively observed by the experimental assistants. Table 6b indicates that the children who viewed the littering announcement were significantly less likely to litter the experimental room than the non-exposed Ss. Among viewers, 25% put the wrapper in the waste basket and 2% threw it on the floor; 19% of the non-exposed Ss disposed of the wrapper in the basket and 11% littered the floor. The younger children were clearly most influenced, as the differential between exposed and non-exposed on these two behaviors was about triple that of the older subgroup (Table 6c).

Discussion. This experiment demonstrates that a typical public service announcement can be effective in shaping the everyday behavior of children. Although this was a familiar message repeatedly presented on Saturday mornings, the additional exposure was apparently sufficient to remind the children not to litter. The short-run behavioral effect was more pronounced than the impact on the more basic anti-pollution attitude; a ceiling effect may also have been operating on this attitudinal variable. The lack of attention and higher level of irritation may be traced to the frequent amount of previous viewing of the message. In sum, these findings suggest that repeated presentation of this type of PSA may serve as a constant reminder of proper behavior, especially for young children who may occasionally forget to behave appropriately.

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(7) CONSEQUENCES OF MEDICINE ADVERTISING

Some critics have expressed concern that young viewers who see commercials for non-prescription pain reliever drugs may suffer adverse psychological effects. To test the implications of such medicine advertising, half of the Ss were shown a conventional ad for Dristan decongestant tablets, while the remaining Ss formed a control group not exposed to any message relating to this topic.

Observed responses. Compared to attention patterns for all other commercials, Ss paid substantially less attention to this Dristan commercial, with younger children especially inattentive (Table 7a). Observers noted considerably more irritation with the commercial than the average ad, especially within the younger subgroup. Enjoyment was somewhat less evident than usual, with the younger Ss again reacting most negatively. Relevant verbalizations were almost nonexistent, as only 1% of the Ss talked about the commercial.

Intentions. In the post-viewing interviews, twice as many exposed as non-exposed Ss said they would take a pill to combat a stuffed-up nose; exposed Ss specifically mentioned Dristan by a 5% to 2% margin over the control group (Table 7b). Conversely, just 1% of the exposed group vs. 6% of the control group said they would rest or stay home if they became sick. The older Ss were somewhat more affected by the medicine commercial: 20% indicated they would take a pill, while 9% of the younger subgroup gave this reply (Table 7c).

Perceptions. Table 7b describes the results on four perceptual variables relating to the speed and efficacy of medicine, frequency of societal illness, and the speed of general problem-solving. There was no difference in perceptions of the speed of pain relief provided by medicine. The exposed children perceived that people are sick slightly more frequently than the non-exposed children, especially in the older subgroup (Table 7c). There was a slight tendency for those viewing the Dristan commercial to feel that advertised medicines were effective, with this effect confined to the younger age group. There was actually a mild tendency for the control group to feel that they can solve problems faster than the exposed group, especially among older Ss.

Discussion. This set of findings suggests that viewership of medicine advertising may make children more oriented toward use of pills for pain relief, and perhaps more conscious of physical illness occurring around them. In both cases, older children appear to be primarily susceptible to influence. There are no indications that this impact is generalized to a perception that pills will make a person feel better faster, or that problems in general can be quickly solved. One result indicates that younger children may be persuaded to believe that advertised medicines are helpful for illness. This type of adult-oriented medicine advertising may not be very popular with child audiences, since the observational results showed that this commercial attracted the least attention and commentary while stimulating the greatest irritation, particularly in the younger age group.

(8) PRODUCT ACCESSORY DISCLAIMERS

Although advertisers are required by code to disclose which toy accessories are not included in the basic purchase, they often seek to de-emphasize this disclaimer because it may impede the message impact. This study sought to determine how two disclaimer techniques affected children's learning about the accessory and their desire for the product. In one condition a video-only disclaimer of "batteries not included" was superimposed during a Mattel Vertibird commercial, while the other condition featured an audio voice-over announcement of "batteries not included" in addition to the visual message.

Observed responses. In Table 8a, attention levels were greater in the video-only disclaimer commercial than the audio-video version to a nearly significant degree. This was particularly true for older children, where the difference was significant. Irritation was slightly higher in the audio-video condition, and enjoyment was slightly higher in the video-only treatment. Substantially more relevant and irrelevant verbalizations were recorded in the audio-video condition, both positive and negative. It should be pointed out that since the audio disclaimer occurred near the end of the half-minute commercial, the opportunity to observe responses due to this manipulation was quite limited.

Learning. There was little difference between the two treatments on recall of the Vertibird commercial, as shown in Table 8b. When asked what isn't included when the product is purchased, Ss were more than twice as likely to spontaneously mention "batteries" after hearing the audio-video disclaimer. Older Ss learned this information to a much greater extent than younger Ss in each condition, with no significant age interaction (Table 8c). A follow-up question, asked of those who mentioned that batteries weren't included, indicated that hearing the statement was much more influential than seeing it for Ss in the audio-visual condition. Only 5% of all video-only Ss reported reading the statement, and these were all older children.

Desire. Those in the video-only condition were significantly more likely to want to get the Vertibird toy, with 14% more Ss saying they wanted it "a lot" than in the audio-video condition. This difference held for both age groups.

Discussion. The results show that the inclusion of an audio as well as video disclaimer in a commercial tends to reduce the persuasive effectiveness of the message. The visual disclaimer regarding a non-included product accessory was perceived by few children, while the audio statement substantially improved learning of the disclosure. Thus, the use of an audio disclaimer is much more likely to inform viewers of the need for batteries, and this factor apparently dampens their desire to obtain the product.

(9) CLUSTERED VS. DISPERSED STRUCTURE OF PRESENTATION

Television commercials are currently presented in sets of two or three commercials at several points during a program. This dispersed structure is assumed to maximize message impact in terms of attention, information gain, and persuasion. Some observers have suggested that children's commercials should be "bunched" or "clustered" at either the beginning or end of a program to reduce program disruption and advertising intrusiveness. In this manipulation, one group viewed

seven commercials clustered together, while the other group saw the ads scattered throughout the program tape in four different positions. The impact of structure on responses to both the commercials and programming were measured.

Observed responses. Table 9a presents the responses of the children while viewing the advertising, with the statistics averaged across the seven commercial slots on each stimulus tape. The attention level was somewhat higher in the clustered condition; when the seven ads were summed together, the overall difference achieved significance. Irritation was approximately equal in each treatment. Enjoyment was slightly greater for the clustered presentation, as younger children tended to enjoy this structure while older children enjoyed the dispersed structure slightly more The amount and direction of verbalizations were equivalent in each condition. An interview question asking Ss how much they liked the commercials showed a very slight advantage for the clustered condition, especially among younger Ss (Table 9b and 9c).

More detailed analyses from earlier to later advertising slots on the stimulus tapes allow an assessment of the relative effectiveness throughout the lengthy cluster. The conventional dispersed structure can serve as a standard of comparison, since the specific qualities of commercials appearing in various slots contribute importantly to the responses. The set of findings for attention indicate that the advantage for the clustered condition was fairly constant throughout the sequence of commercials; there was only a slight tendency for relative attention to fall toward the end of the cluster (see continuation of Table 9a). The pattern of differences between the two conditions is approximately the same for older and younger age groups. For irritation, the trend data indicates that children were relatively less irritated by the commercials presented at the end of the cluster than the corresponding ads in the dispersed structure. Enjoyment levels were fairly similar between the two conditions from early to late slots, with a very slight tendency for clustered ads in the last two slots to be relatively more enjoyed than those in the first two slots, compared to the dispersed treatment.

Learning. There was a very slight tendency for Ss to display greater recall of a given commercial in the dispersed condition than the clustered condition (Table 9b). This tendency was a bit stronger for the later commercials in the sequence; the ads in the first three slots were remembered about equally well in each treatment, while the latter four messages were more often remembered in the dispersed structure condition. There was little differential recall by age (Table 9c).

Eight specific items measuring learning from various commercials are presented in Table 9b. In each case, the Ss in the clustered condition gained as much or more information than Ss viewing the dispersed presentation. There was essentially no difference in mention of premiums, knowledge of vitamins, and mention of Dristan. Those viewing the clustered ads were somewhat more able to describe the actors in the Tumblebug commercial, to know why the Indian was sad about pollution, and mention that batteries are not included with Vertibird. On six of the eight items in Table 9c, the younger Ss learned slightly more in the clustered than the dispersed conditoon; no differences were obtained for the older Ss.

Desire. Five items assessed the preference for various cereals or toys shown in the commercials. In no case was a product more often preferred when presented in the dispersed treatment, although none of the difference reach statistical significance (Table 9b). On the average, 61% of the Ss in the clustered condition expressed desire, compared to 58% in the dispersed condition. For the younger Ss, there was a negligible average difference of 63% vs. 62%. The desires of older Ss were more influenced by the clustered by an average 59% to 53% margin (Table 9c).

Discussion. The children's responses while viewing clustered vs. dispersed commercials were not substantially different; indeed, attention was higher in the clustered condition. Moreover, there was no significant tendency for these responses to deteriorate from the earlier to the later ads within the cluster. There were no important age differences in response. These findings indicate that clustering does not produce unfavorable consequences in terms of attention, irritation, enjoyment or talking.

The post-viewing interviews showed that patterns of learning from the commercials were not significantly affected by the structure of presentation. While children were slightly less able to recall the later commercials in the cluster sequence, acquisition of content information did not differ for older children and the younger children tended to learn more in the clustered condition. Preference for the advertised products was slightly greater in the clustered treatment, especially for older children. Thus, the clustering of commercials does not inhibit information gain or desire for the products; the evidence actually indicates slightly greater effects when commercials are presented in a clustered rather than dispersed structure.

It must be noted that the generalizability of these findings is somewhat limited by the artificiality of the laboratory setting. Viewers did not have the range of alternative activities to pursue if the commercials proved uninteresting; the constraints in this situation may have forced children to attend more closely than in the home environment. Therefore, reactions to clustered commercials in a naturalistic setting may not be so favorable, as children might lose interest and discontinue viewing. Nevertheless, the structuring of commercials in large clusters does not appear to limit advertising effectiveness in this study.

Observed responses to programming. This experiment also investigated the consequences of presentational structure for responses to the cartoons that were shown on the stimulus tape. They key measures were 30-second observations of attention, irritation, and enjoyment recorded at three points in the program: (1) midway through the first Bugs Bunny cartoon or first half of the Flintstones cartoon; (2) at the beginning of the second Bugs Bunny cartoon or second half of the Flintstones cartoon, immediately following the commercial break in the dispersed condition; and (3) midway through the second Bugs Bunny cartoon or second half of the Flintstones cartoon.

Table 9d presents the results for attention. Overall, there was no differnece in level of attention to the programming. Slightly more attention to the Flintstones was observed in the dispersed condition, while attention to Bugs Bunny was somewhat greater in the clustered condition. Three-fourths of the Ss viewing the dispersed structure attained eye contact with the cartoon programming immediately

as it resumed after the break; those in the clustered condition fixed attention on the corresponding cartoon segments at a slightly faster rate when the ads did not intervene.

Displays of irritation with the program did not differ according to the advertising structure (see continuation of Table 9d). The only exception was the relatively higher rate of irritation for Ss in the dispersed treatment during the first section of Flintstones cartoon.

Observed enjoyment of the cartoons was slightly greater in the clustered format. This difference was due primarily to the more favorable response to the uninterrupted Flintstones cartoon. In particular, significantly more enjoyment was expressed during the beginning of the second half of the Flintstones when it immediately followed the first half than when it was separated by several commercials. Coders judged that 29% displayed enjoyment during the key segment in the unbroken format, compared to 11% in the interrupted format.

All forms of verbalizations were displayed more frequently in the clustered condition. However, most comments were unrelated to the program itself.

Learning from programming. Ss who watched the Flintstones cartoon were asked to recall the basic plot to determine whether cognitive processing of the content was inhibited by the advertising interruptions in the dispersed condition. Table 9e shows that their description of the main character's activities was slightly more complete and accurate in the dispersed treatment. This was due to the tendency for older Ss to learn more when the program was broken by commercials; the younger Ss displayed greater recall in the clustered condition.

Liking for programming. Ss were asked to rate how much they liked the cartoon programming that was shown. The vast majority said they liked the show "a lot," with a mildly higher rate of enjoyment reported in the dispersed condition. Responses of the younger Ss didn't differ by experimental treatment; the older Ss liked the cartoon significantly more in the dispersed than the clustered presentation.

Program discussion. The basic pattern of findings yields only minor differences in programming response between the clustered and dispersed advertising formats. The presumed benefits of running program material without commercial interruption were not demonstrated in this experiment. While negative consequences might not be anticipated in the case of the two unconnected Bugs Bunny cartoons, the general lack of difference in response to the interconnected continuous-plot Flintstones cartoon is noteworthy. Despite the advertising break midway through the plot, children actually paid slightly greater attention and displayed greater comprehension of the content in the dispersed Flintstones condition. The stronger expression of enjoyment while viewing the second half of the unbroken Flintstones cartoon was not reflected in the overall post-viewing evaluations, so the impact on this variable is unclear.

One likely explanation for the lack of difference involves the socialization of children to the conventional structure of advertising presentations in this country. Perhaps children become accustomed to processing programming in fairly short portions between commercial breaks; thus they obtain enjoyment and knowledge regardless of the advertising that may be embedded in the program. There is suggestive evidence

that this capacity is learned throughout childhood: older children in late elementary school were substantially more likely to enjoy and comprehend the programming in the dispersed condition, while the younger children were affected in a contrasting manner on the learning measure and unaffected on the liking measure. Therefore, it appears that children do adjust to the present system of presenting advertising within programs and can readily cope with the interrupted program format.

(10) RESPONSES TO COMMERCIALS BY AGE AND RACE

In the various experiments, age and race have been considered only as interaction variables that combine with the treatment variables to produce differential effects. These two child characteristics can also be examined as independent variables that have direct effects on how viewers respond to the experimental advertisments. Such analyses provide an assessment of how viewing responses and learning from commercials differ between older and younger Ss, and between white and black Ss. These variables will be assessed across the eight different content manipulations to determine underlying patterns for all commercials viewed.

Observed responses. Table 10a shows that older children paid significantly more attention than younger children. The quarter-point difference on the five-point scale was remarkably consistent across the various commercials, but is not sizable. White children gave considerably more attention to the ads than black children, scoring more than one-third of a point higher on the average. Irritation was displayed much more by the younger Ss: 29% evidenced irritation to the average commercial, compared to 16% of the older Ss. Black Ss exhibited slightly more irritation than whites, but the difference was non-significant. On enjoyment of the advertisments, there were no differneces by age or race. Although there was variation in response to specific ads, the average enjoyment levels were nearly the same among the subgroups. There was a slight but significant tendency for younger children and black children to express relevant verbalizations during the commercials.

Learning. In table 10b, the first set of findings show that older children were far more likely to recall the products advertised in the commercials; on the average, 25% of the older Ss vs. 11% of the younger Ss could recall a brand name with or without probing. There was a modest endency for whites to remember the ads more often than blacks, with an average 18% vs. 14% difference in brand recall.

There are eight items measuring content-related learning of advertising stimuli listed in Table 10b. Among those viewing the Poptarts ad with a premium, the older Ss and white Ss somewhat more often mentioned the premium as a reason for wanting the product. On the Tumblebug commercial, older and younger groups did not differ on racially-based descriptions of the actors, but older children were more able to describe the actors in other terms. Somewhat more black than white Ss referred to race, but the overall level of description does not differ. Older children were slightly more likely to know that Food Club Frosted Flakes had vitamins, and far more likely to remember which vitamins were in the rational version of the commercial: three-quarters could name at least one vitamin, compared to one-quarter of the younger Ss. Blacks and whites displayed equal awareness of the presence of vitamins, but the whites were much more able to name all four specific vitamins. Older and white viewers of the anti-pollution PSA gave correct explanations about the anti-pollution Indian somewhat more often. Older and white viewers of the Dristan commercial were almost twice as likely to cite pills and medicine (including Dristan) as

their anticipated response to a stuffed-up nose. Finally, the older and white groups were much more cognizant of the non-inclusion of batteries with a purchase of Vertibird. The older Ss were the only ones to recall reading the disclaimer on the screen.

An overall assessment of learning can be calculated by averaging the correct or advertising-appropriate responses across the eight items. The trend apparent in the item-by-item analysis becomes clear: older children scored an average of 63% and younger children scored 42%; white children learned somewhat more than black children by an average 54% to 47% margin.

Desire. Verbal expressions of desire for four products were elicited after viewing the commercials. The younger Ss expressed more preference for Pebbles Cereal, Food Club Frosted Flakes and Vertibird, as did the black Ss. Poptarts were more desired by the older and white Ss. On the average, 59% of the younger vs. 50% of the older Ss wanted an advertised product; a similar 58% vs. 50% difference occurred between the black and white Ss.

Discussion. These findings indicate considerable differences in the manner that older and younger children react to television advertising. The older children between the ages of 8 and 10 paid somewhat more attention to commercials under these controlled conditions, focusing on the screen for perhaps two seconds longer on each half-minute message. The younger children between the ages of 3 and 7 (most subjects were in the upper half of this age range) displayed much more irritation while viewing the commercials.

Clearly the older children acquired substantially more information from exposure to commercials: they were more than twice as likely to recall the brands advertised, and were half again more likely to provide adequate descriptions of key elements presented in the commercials. On the other hand, desire for the advertised products was somewhat greater in the younger group, although this tendency may have reflected inherent preference for the types of products studied rather than advertising impact.

Thus the child's level of cognitive development, as represented by age, appears to be a key variable in the processes of intentional and incidental learning from commercials. Older children have a more sophisticated ability for processing, structuring and storing incoming information. Younger children have less firmly established preferences, and are more susceptible to creation of new affective orientations or change of weakly formed views. This may partially explain why the younger viewers expressed more desire for the advertised products than the older ones.

There are also significant differences between white and black children, although the magnitude of difference is modest. Whites paid much more attention to the commercials, averaging two-to-three seconds more eye contact per message. Irritation and enjoyment levels were about the same for each group, while blacks talked slightly more about the ads.

On most of the cognitive variables, whites appear to have learned somewhat more than blacks. There was an average 4 percentage point spread between the two groups on recall of advertised brands and an average 7% difference on information acquisition from the messages. This pattern of findings can be partially accounted for by two

00036

factors: the mild sampling bias such that black subjects were disproportionately represented in the younger age group while whites tended to be older; and the sociological tendency for black subjects to come from inner-city working class backgrounds while whites tend to be from middle-class suburban neighborhoods.

00037

FIGURE 1

MANIPULATED COMPOSITION OF ADVERTISING-NEWS STIMULUS TAPES

TAPE ONE

INTRODUCTION TO FLINTSTONES PROGRAM

POP TARTS AD -- WITH PREMIUM

BLOCKHEAD AD — EXTRAVAGENT CLAIM

FLINTSTONES PROGRAM -- FIRST HALF

FLINTSTONES CEREAL AD

TUMBLEBUG AD -- WHITE ACTORS

FROSTED FLAKES AD -- RATIONAL THEME

FLINTSTONES PROGRAM -- SECOND HALF

DRISTAN DECONGESTANT AD

INTRODUCTION TO NEWS-SPY STORY

VERTIBIRD AD -- VIDEO DISCLAIMER

IN THE NEWS -- ORIGINAL SCRIPT

TAPE TWO

INTRODUCTION TO BUGS BUNNY PROGRAM

POP TARTS AD -- WITHOUT PREMIUM

BLOCKHEAD AD -- MODEST CLAIM

BUGS BUNNY PROGRAM -- FIRST CARTOON

FLINTSTONES CEREAL AD

TUMBLEBUG AD -- BLACK ACTORS

FROSTED FLAKES AD -- EMOTIONAL THEME

BUGS BUNNY PROGRAM -- SECOND CARTOON

INDIAN ANTI-POLLUTION AD

INTRODUCTION TO NEWS-SPY STORY

VERTIBIRD AD -- AUDIO/VIDEO DISCLAIMER

IN THE NEWS -- SIMPLIFIED SCRIPT

TAPE THREE

INTRODUCTION TO NEWS -- QUINTS STORY

VERTIBIRD AD -- VIDEO DISCLAIMER

IN THE NEWS -- SIMPLIFIED SCRIPT

INTRODUCTION TO FLINTSTONES PROGRAM

POP TARTS AD -- WITH PREMIUM

BLOCKHEAD AD -- EXTRAVAGENT CLAIM

FLINTSTONES PROGRAM -- FIRST HALF

FLINTSTONES CEREAL AD

TUMBLEBUG AD -- WHITE ACTORS

FROSTED FLAKES AD -- RATIONAL THEME

FLINTSTONES PROGRAM -- SECOND HALF

DRISTAN DECONGESTANT AD

TAPE FOUR

INTRODUCTION TO NEWS -- QUINTS STORY

VERTIBIRD AD -- AUDIO/VIDEO DISCLAIMER

IN THE NEWS -- ORIGINAL SCRIPT

INTRODUCTION TO BUGS BUNNY PROGRAM

POP TARTS AD -- WITHOUT PREMIUM

BLOCKHEAD AD -- MODEST CLAIM

BUGS BUNNY PROGRAM -- FIRST CARTOON

FLINTSTONES CEREAL AD

TUMBLEBUG AD -- BLACK ACTORS

FROSTED FLAKES AD -- EMOTIONAL THEME

BUGS BUNNY PROGRAM -- SECOND CARTOON

INDIAN ANTI-POLLUTION AD

FIGURE 1(CONTINUED)

TAPE FIVE

INTRODUCTION TO FLINTSTONES PROGRAM

FLINTSTONES PROGRAM -- FIRST HALF

FLINTSTONES PROGRAM -- SECOND HALF

POP TARTS AD -- WITH PREMIUM

BLOCKHEAD AD -- EXTRAVAGENT CLAIM

FLINTSTONES CEREAL AD

TUMBLEBUG AD -- WHITE ACTORS

FROSTED FLAKES AD -- RATIONAL THEME

DRISTAN DECONGESTANT AD

VERTIBIRD AD -- VIDEO DISCLAIMER

INTRODUCTION TO NEWS-SPY STORY

IN THE NEWS -- ORIGINAL SCRIPT

TAPE SIX

INTRODUCTION TO BUGS BUNNY PROGRAM

BUGS BUNNY PROGRAM -- FIRST CARTOON

BUGS BUNNY PROGRAM -- SECOND CARTOON

POP TARTS AD -- WITHOUT PREMIUM

BLOCKHEAD AD -- MODEST CLAIM

FLINTSTONES CEREAL AD

TUMBLEBUG AD -- BLACK ACTORS

FROSTED FLAKES AD -- EMOTIONAL THEME

INDIAN ANTI-POLLUTION AD

VERTIBIRD AD -- AUDIO/VIDEO DISCLAIMER

INTRODUCTION TO NEWS-SPY STORY

IN THE NEWS -- SIMPLIFIED SCRIPT

TAPE SEVEN

INTRODUCTION TO NEWS -- QUINTS STORY

IN THE NEWS -- SIMPLIFIED SCRIPT

INTRODUCTION TO FLINTSTONES PROGRAM

POP TARTS AD -- WITH PREMIUM

BLOCKHEAD AD -- EXTRAVAGENT CLAIM

FLINTSTONES CEREAL AD

TUMBLEBUG AD -- WHITE ACTORS

FROSTED FLAKES AD -- RATIONAL THEME

DRISTAN DECONGESTENT AD

VERTIBIRD AD -- VIDEO DISCLAIMER

FLINTSTONES PROGRAM -- FIRST HALF

FLINTSTONES PROGRAM -- SECOND HALF

TAPE EIGHT

INTRODUCTION TO NEWS -- QUINTS STORY

IN THE NEWS -- ORIGINAL SCRIPT

INTRODUCTION TO BUGS BUNNY PROGRAM

POP TARTS AD -- WITHOUT PREMIUM

BLOCKHEAD AD -- MODEST CLAIM

FLINTSTONES CEREAL AD

TUMBLEBUG AD -- BLACK ACTORS

FROSTED FLAKES AD -- EMOTIONAL THEME

INDIAN ANTI-POLLUTION AD

VERTIBIRD AD -- AUDIO/VIDEO DISCLAIMER

BUGS BUNNY PROGRAM -- FIRST CARTOON

BUGS BUNNY PROGRAM -- SECOND CARTOON

FIGURE 2

GRAPHIC DISPLAY OF STRUCTURAL MANIPULATION

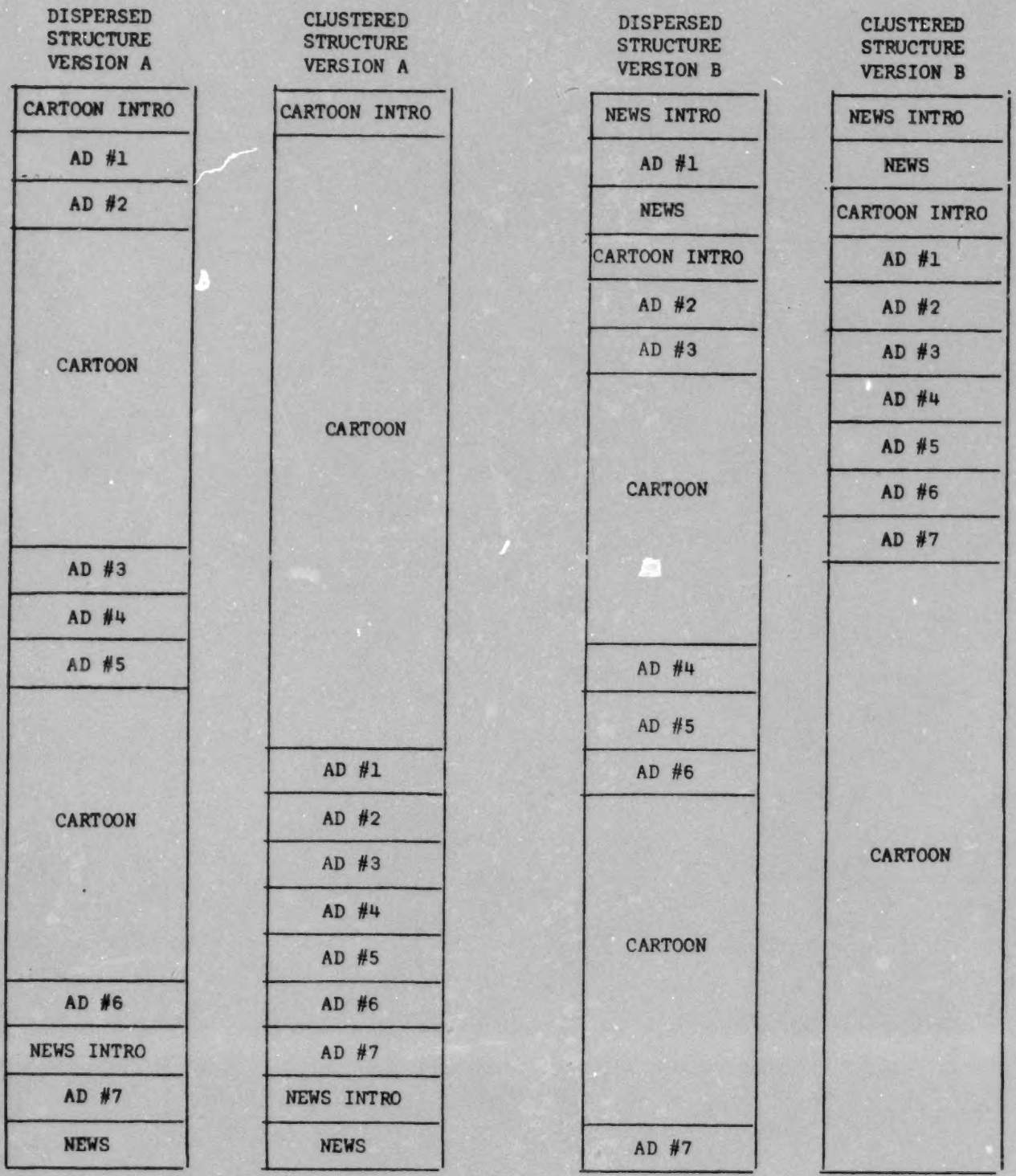


FIGURE 3 -- CARTOON MANIPULATION

BUGS BUNNY CARTOON

Flintstones Cereal

Fred, your fruity Pebbles tastes
like a bowl of noisy fruit.
And Cocoa Pebbles are cocoa-mocoa
good, I love Pebbles.
Yubba dubba do!

Show Fred your new magic trick,
Barney.

FLINTSTONES CARTOON

Magic trick?
Uh yea, I can make your Pebbles disappear.
Huha, show me.
Fruity Pebbles, abracadabra...
Look at that!
...Cocoa Pebbles...
Gosh!
...alakazam!
They disappeared.
Right!

Now bring 'em back.
Haha, oh sorry Fred, I haven't learned that part yet.

Bring back my Pebbles! It tastes so good.

FLINTSTONES CARTOON

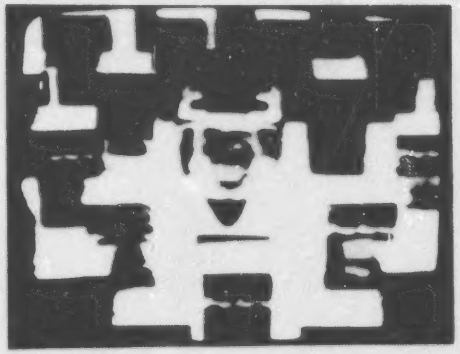
BUGS BUNNY CARTOON

FIGURE 3 (CONTINUED)

00012

Pop Tarts

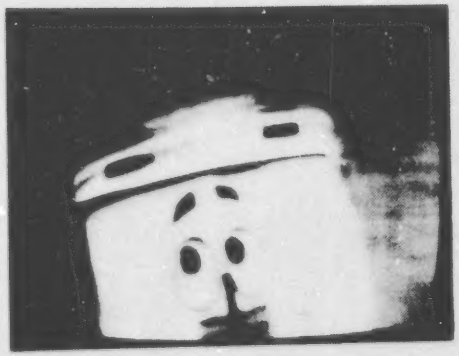
Jingle:
Here at Kelloggs we've got Pop Tarts.
We've got cherry, cherry Pop Tarts.
We've got chocolate fudge Pop Tarts,
and chocolate vanilla cream.



Pop Tarts

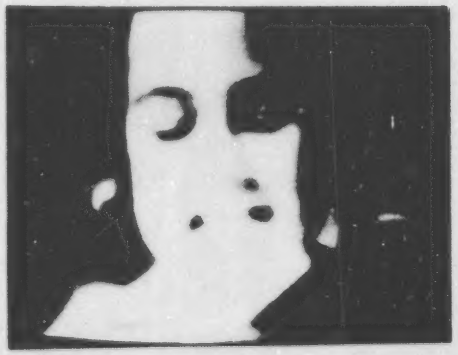
Jingle:
Here at Kelloggs we've got Pop Tarts.
We've got cherry, cherry Pop Tarts.
We've got chocolate fudge Pop Tarts,
and chocolate vanilla cream.

We've got strawberry frosted.
We've got rasberry frosted.



We've got strawberry frosted.
We've got rasberry frosted.

From sugar cinnamon frosted, more
flavors than you can name.



From sugar cinnamon frosted, more
flavors than you can name.

PREMIUM OFFER

NO PREMIUM OFFER

FIGURE 4 -- PRODUCT PREMIUM MANIPULATION

FIGURE 4 (CONTINUED)

There's also Milton's Puzzling Note to put together.

Turn it over, write a note, have a friend figure it out.

Four different puzzles, one free in specially marked packages of Kelloggs Pop Tarts and Danish-Go-Rounds Toaster Pastry.

PREMIUM OFFER

NO PREMIUM OFFER

Blockhead

Now kids, there's a different kind of game.

Blockhead, the game of fun and skill with crazy shaped blocks.

Blockhead, the game for kids of all ages.

EXTRAVAGENT CLAIM

Blockhead

Now kids, there's a different kind of game.

Blockhead, the game of fun and skill with crazy shaped blocks.

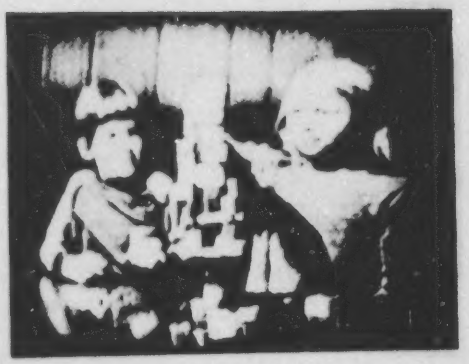
Blockhead, the game for kids of all ages.

MODEST CLAIM

FIGURE 5 -- PRODUCT PERFORMANCE CLAIM MANIPULATION

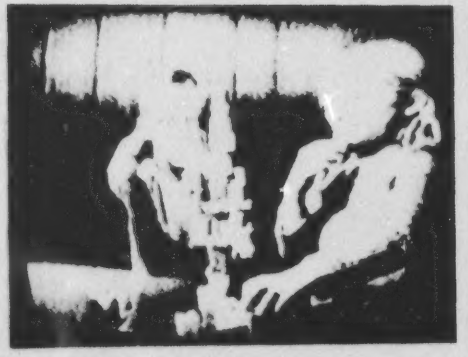
00015

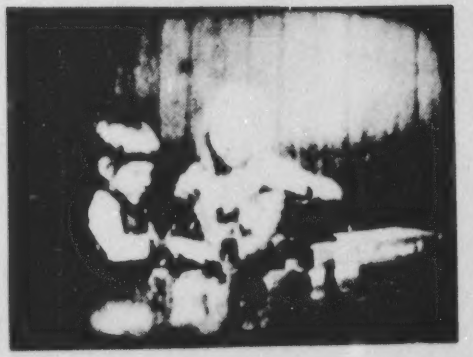
Can you top this?
Of course you can! Just stack the crazy shaped blocks, one by one, in a sky-nigh tower so you can be the champion.



It's fun to stack Blockhead towers, anyone can play Blockhead.

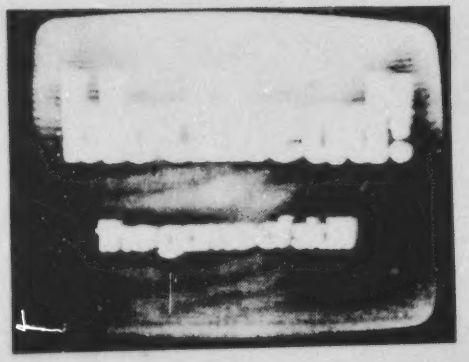
Can you succeed?
Can you stop your opponent?..
Or, will your tower tumble?





Can you top this?
You and your friends will have hours of fun playing with Blockhead.

You'll be the winner with Blockhead, a game of skill.



Blockhead is fun for everyone.

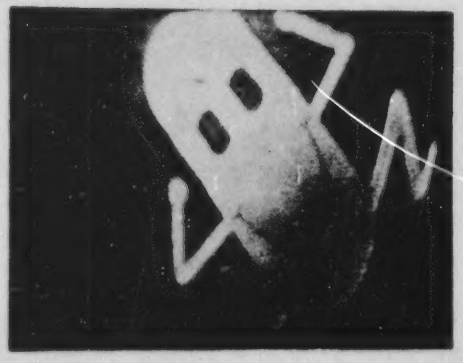
EXTRAVAGENT CLAIM

MODEST CLAIM

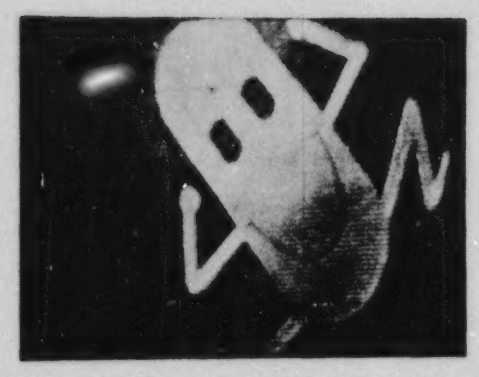
FIGURE 5 (CONTINUED)

Tumblebug

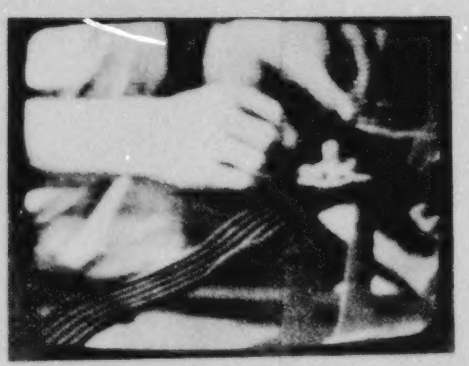
Announcing Tumblebug, a great new racing game for kids.
It's loads of fun for everyone.



Tumblebug is the only little critter peppy enough to give you hours of racing excitement.



Just line up the Tumblebugs at the starting gate, then open the gate to start the race

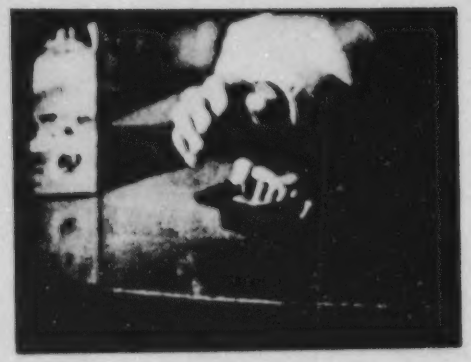


BLACK ACTORS

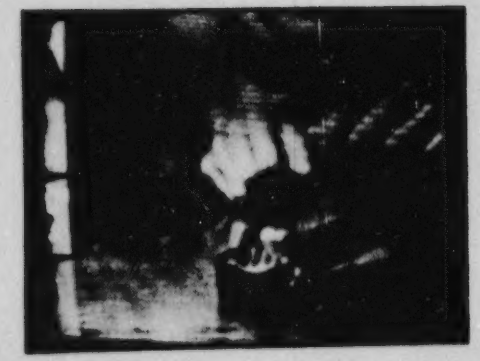
WHITE ACTORS

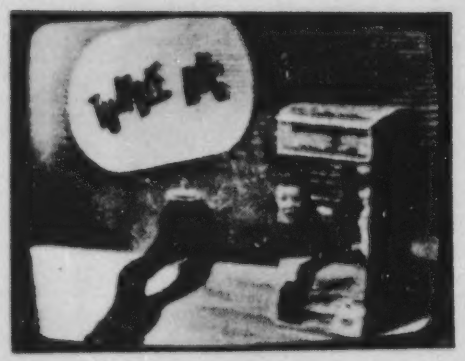
FIGURE 6 -- PERFORMER RACE MANIPULATION

00017

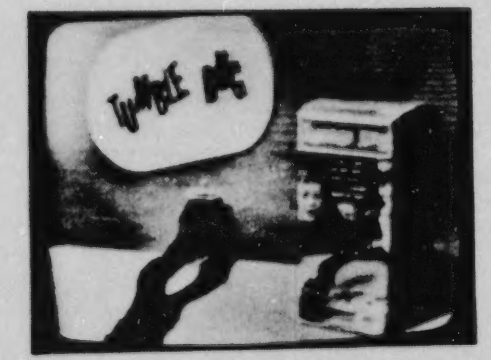


and watch the Tumble-bugs tumble head over heals racing to the finish line.





So race downtown and get your Tumblebug today.
It's fun.



BLACK ACTORS

WHITE ACTORS

FIGURE 6 (CONTINUED)

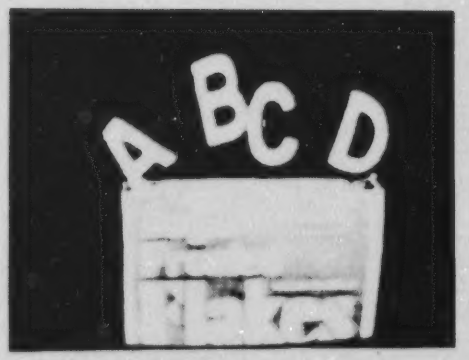
S1003 0018

Frosted Flakes

It's another school day and time to fuel up with Frosted Flakes.
Mom serves Food Club.

Frosted Flakes

It's time to fuel up with Sugar Frosted Flakes.
Mom serves Food Club.



Sugar Frosted Flakes are bursting with vitamins A, B, C, and D, vitamins that

RATIONAL THEME

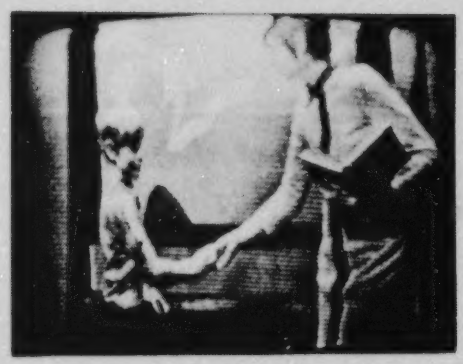
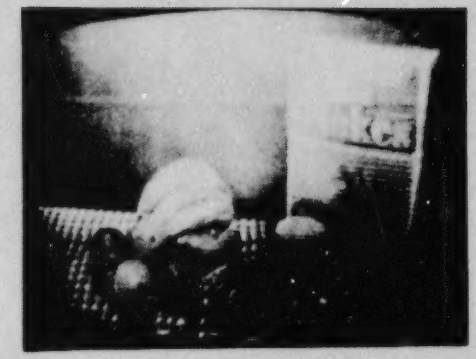
They're really loaded with energy to help make you a great swimmer or anything else you might want to be.

EMOTIONAL THEME

FIGURE 7 -- RATIONAL-EMOTIONAL THEME MANIPULATION

00049

FIGURE 7 (CONTINUED)

give you energy to work hard in school.		Frosted Flakes give you energy to do great in school.
So, start your day with vitamin packed Sugar Frosted Flakes. Remember, they're good for you and taste good, too.		So, start your day with energy packed Sugar Frosted Flakes. Remember, they're good for you and taste good, too.
Sugar Frosted Flakes from Food Club in the pink and yellow box.		Sugar Frosted Flakes from Food Club in the pink and yellow box.
RATIONAL THEME		EMOTIONAL THEME

090530

FIGURE 8 -- NONPRESCRIPTION DRUG MANIPULATION

Dristan

Bad cold?
Aha, I ache.

I don't know whether it's a cold or
the flu.
Fever, too.

(Voice-over)
Remember, time capsules do nothing
for a fever or body aches.
But Dristan.

EXPOSED CONDITION

NON-EXPOSED CONDITION

They're strong medication to reduce fever, relieve body aches.
And Dristan helps clear up congestion in the sinuses, critical areas of cold's infection.

Hey, better today, honey?
Fevers down, I'm breathing easier, too.
That's great!

(Voice-over)
Dristan tables, strong medication for the fever and miseries of flu and colds.

EXPOSED CONDITION

NON-EXPOSED CONDITION

FIGURE 8 (CONTINUED)

00052

FIGURE 9 -- ANTI-POLLUTION PSA MANIPULATION

FIGURE 9 (CONTINUED)

Some people have a deep, abiding respect for the natural beauty that was once this country.

And some people don't.

People start pollution, people can stop it.

EXPOSED CONDITION

NON EXPOSED CONDITION

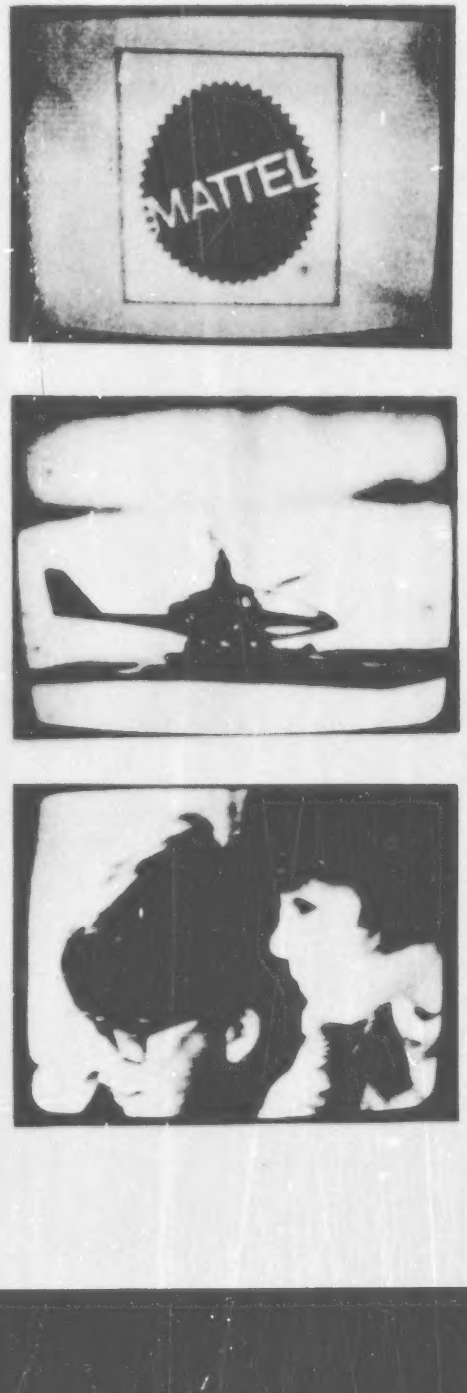
Vertibird

"In the News," is sponsored by all the new toys from Matell.

Vertibird!

The electric powered 'copter with rotor blades that actually lift it into flight

VIDIO-ONLY DISCLAIMER



Vertibird

"In the News," is sponsored by all the new toys from Mattel.

Vertibird!

The electric powered 'copter with rotor blades that actually lift it into flight

AUDIO-VIDEO DISCLAIMER

FIGURE 10 -- ACCESSORY DISCLAIMER VARIATIONS

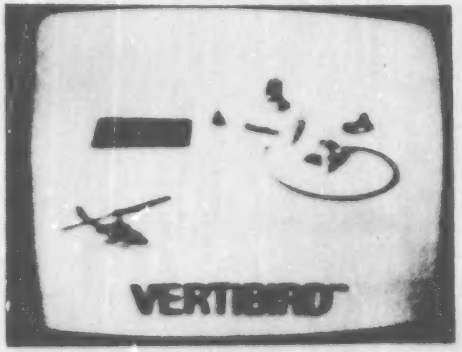
00035

and the precision controls that make you the Vertibird pilot.

During March you can visit a participating Kentucky Fried Chicken store and get a two dollar refund certificate on Vertibird.
Mail it with proof of toy purchase before June 1st for refund.

Vertibird, the electric 'copter, comes with space capsule, landing pod, life raft, and astronaut, from Mattel.

VIDEO-ONLY DISCLAIMER



and the precision controls that make you the Vertibird pilot.

During March you can visit a participating Kentucky Fried Chicken store and get a two dollar refund certificate on Vertibird.
Mail it with proof of toy purchase before June 1st for refund.

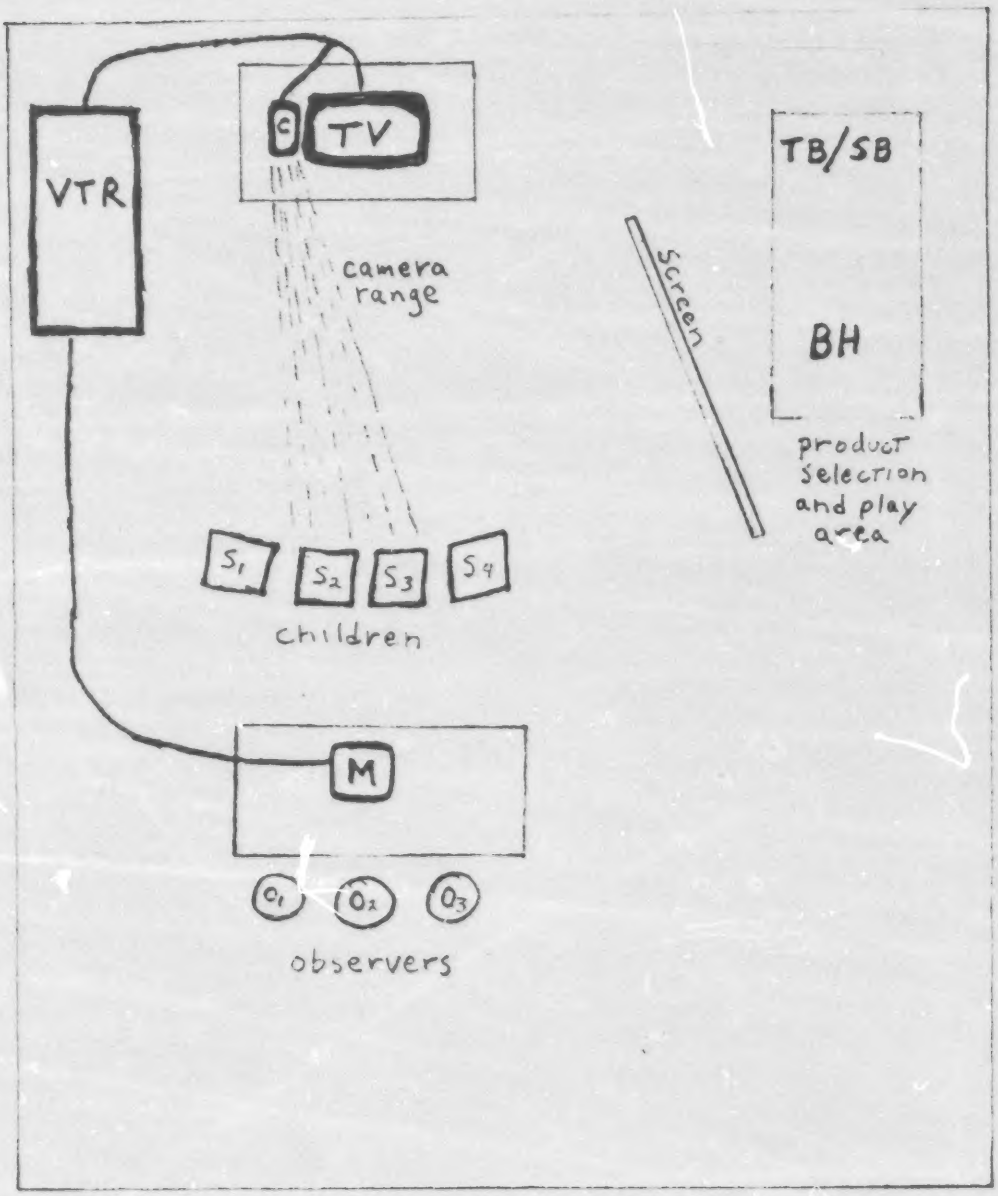
Vertibird, the electric 'copter, comes with space capsule, landing pod, life raft, and astronaut, batteries not included.

AUDIO-VIDEO DISCLAIMER

FIGURE 10 (CONTINUED)

FIGURE 11

PHYSICAL LAYOUT OF PROTOTYPIC EXPERIMENTAL ROOM



VTR = Video tape recorder
TV = Television playing tape
M = Monitor showing subject S_2 + S_3
C = Video camera feeding monitor

TB = Tumblebug toy
SB = Spill the Beans toy
BH = Blockhead toy

00057

S_1 _____ | S_2 _____

Sex ____ Age ____ | Sex ____ Age ____

Race ____ SES ____ | Race ____ SES ____

Show number ____ Coder _____

FIG. 12 Verbalizations

	Product/Program			Delivery			UR	Attention 1 - 5	Irritation 1 - 3	Enjoyment 1 - 3
	+	0	-	+	0	-				
Poptarts										
Blockhead										
Flintstones - Part 1, 3rd minute Begin: "Yabadaba do, lets get this" End: "Flight no. one cleared"										
Flintstones cereal I D N I D N										
Tumblebug										
Frosted Flakes										
Flintstones - Part 2, 1st 30 sec. S_1 _____ sec. S_2 _____ sec.										
Flintstones - Part 2, 3rd minute Begin: "Gee, thanks Barney" End: "Hang on Barney"										
Dristan drug I D N I D N										
News - Spy story - introduction										
Mattell Vertibird										
News - first 30 sec.										
News - second 30 sec. Begin: "A famous American spy"										
News - third 30 sec. Begin: "The CIA works on"										

00058

FIGURE 13

Subject name: _____

Sex: _____ Race: _____ Age: _____

School: _____ Show number: ___

1. First, we want to find out how much you liked watching this TV show.

a. Did you like the cartoon(s)? IF YES: Did you like it a little bit or alot?

No A little Alot

b. Did you like the news story? IF YES: Did you like it a little bit or alot?

No A little Alot

c. Did you like the commercials? IF YES: Did you like them a little bit or alot?

No A little Alot

2. What did you think about the news story of the Spy John Downey?

_____

_____

3. If there was going to be another news story about spys on TV this Saturday, would you watch it?

Yes No

4. What does a spy do?

_____

5. Why did President Nixon ask that John Downey be let go from prison?

Correct Incorrect/Don't know

6. How long was he in prison? IF DON'T KNOW: Was it 2 years or 21 years?

_____ "2 years" "21 years" still don't know

7. I'm going to read three names. Tell me which one was also a famous American spy:

Rudolf Abel Francis Gary Powers Chou-en-lai

8. In the news story, they talked about the CIA. What is the CIA.... what does it do?

_____

9. Can you tell me what quintuplets (quints) are?

correct incorrect

IF DON'T KNOW: It means that a mother has lots of babies at the same time. How many babies make quints?

? 1 2 3 4 5 6 7 8+

10. What did you think about the news story of the little kids?

_____

_____

11. Can you tell me what quintuplets (quints) are?

correct incorrect

IF DON'T KNOW: It means that a mother has lots of babies at the same time. How many babies make quints?

? 1 2 3 4 5 6 7 8+

12. When quints are born, why is it so hard for them to live?

correct incorrect

13. How old are the Kienast quints now?

correct incorrect

14. In the story, friends were helping the Kienasts build a bigger house. Why were they building a bigger house?

correct incorrect

15. You saw a news story about quints. If there was going to be a news story about spys on TV this Saturday, would you watch it?

yes no

16. Can you tell me -- what does a spy do?

_____

17. What things did they want you to buy in the TV commercials you saw?

PROBE: Did you see any (other) ads about things to eat for breakfast?

PROBE: Did you see any (other) ads about toys?

(ASK FOR THE NAME OF THE PRODUCT)

0= not remembered
1= mentioned only general description
2= recalled name only with probe
3= recalled name without probe

_____ Pebbles Cereal

_____ Food Club Frosted Flakes

_____ Pop Tarts

_____ Vertibird

_____ Blockhead

_____ Tumblebug

_____ Dristan

18. FOOD CLUB FROSTED FLAKES

IF NOT REMEMBERED: Do you remember seeing a commercial for Food Club Frosted Flakes where a boy is eating cereal?

IF REMEMBERED: You told me that you saw Food Club Frosted Flakes in the TV ad.

ALL KIDS:
What did they tell you about this cereal? _____

PROBE: Why should you eat it?
What does it do for you? _____

_____

Does Food Club Frosted Flakes have lots of vitamins in it? Yes No

Which vitamins does this cereal have in it? _____

19. PEBBLES CEREAL

IF NOT MENTIONED: Do you remember seeing the Flintstones eating any cereal on TV?

no yes ---- IF YES: Were they eating cereal in the cartoon or in the commercial, or aren't you sure?

yes no not sure

ALL KIDS: Have you ever seen the commercial for Pebbles Cereal on TV at home?

yes no

20. POP TARTS

There was also a commercial for Kelloggs Pop Tarts.
Why do kids like to get Pop Tarts in the food store?

---

21. TUMBLE BUG

Another commercial was for Tumble Bug, the toy where the little bugs race down the slide. Why should you want to buy Tumble Bug?

Remember the two kids playing with the Tumble Bug in the commercial?
Can you tell me what they looked like?

---

22. VERTIBIRD

In another commercial, some kids were playing with the Vertibird helecopter.
When you buy the Vertibird in the store, what thing isn't included?
PROBE: Do you get batteries when you buy Vertibird?

mentioned batteries mentioned batteries with probe wrong answer

IF KNOW THAT BATTERIES NOT INCLUDED: How do you know that batteries are not included?

read/saw it heard it

24. Now I want to ask you a few questions about what happens when you get sick. If you got a stuffed up nose, what would you do for it?

_____

25. If you got sick, and got some medicine from the drug store, how fast would you get better?

_____

26. In general, how often do people have colds, stuffed up noses, or stomach aches? Would you say all the time, lots of times, sometimes, or not very often?

all the time lots of times sometimes not very often don't know

27. If someone was sick and tood something they saw in a TV commercial, how much would it help them..... would you say alot, a little, or not much?

alot a little not much don't know

28. Generally, when you have a problem of some kind, how long does it take to solve it?

_____

29. Lots of people have been talking about pollution and litter bugs these days. Do you think it is important for people to stop littering, or not so important?

not important important ------ IF IMPORTANT -- Is is sort of important, or really important?

sort of really

30. IF IN CONDITION WHERE INDIAN SHOWN:

One of the things you just saw on the program was an Indian in a canoe. Why did the Indian cry at the end?

_____

31. IF IN CONDITION WHERE FLINTSTONES SHOWN:

Can you tell me what happend to Fred in the Flintstones cartoon? (RATE THEIR DESCRIPTION)

good ___ ___ ___ ___ ___ ___ ___ bad

FIGURE 14

Subject name: _____ (A) Subject name: _____ (B)

Sex: _____ Race: _____ Age: _____ Sex: _____ Race: _____ Age: _____

School: _____ Show number: ___ School: _____ Show number ___

ASK EACH CHILD AFTER PRODUCT SELECTION PREFERENCES:

1. How much fun do you think it would be to play with the Blockhead toy? Would you say a lot of fun, a little fun, or not much fun?

2. Remember the two kids playing with Blockhead in the commercial? Do you believe it is as much fun as they showed it would be?

3. Do you think you could build a tower as high as the kids in the commercial, or do you think yours would be higher or lower as the one on TV?

Subject A			Subject B		
1.	Alot	A Little Not Much	1.	Alot	A Little Not Much
2.	Yes	No	2.	Yes	No
3.	Higher	As High Lower	3.	Higher	As High Lower
4.	Anger Rating:	1 2 3	4.	Anger Rating:	1 2 3
5.	Verbal Aggression:	1 2 3	5.	Verbal Aggression:	1 2 3
6.	Physical Aggression:	1 2 3	6.	Physical Aggression:	1 2 3

Anger = display of irritation or indications of being upset or mad

ASK: Does it make you mad when you can't build it right?

1 = no manifestations of anger
2 = limited display of anger -- mild
3 = extensive or intense display of anger

Aggression = overt act intended to injure target person or object

Verbal Aggression

1 = no manifestation at all
2 = limited verbal attack
3 = heavy cursing, loud threats of an extensive nature

Physical Aggression

1 = no manifestation at all
2 = slight pushing, shoving, grappling
3 = extensive physical aggression, such as hitting or throwing blocks

Subjedt name _____ PRODUCT DESIRE

Sex _____ Race _____ Age _____

School _____ Show numb r ____

Tell one child to play with one of the toys on the table. Write down which toy he selects first at bottom of his product desire sheet.

SHOW CHILD BOX OF PEBBLES CEREAL: If you were going to eat breakfast, would you like to have this to eat?

no yes --- IF YES: Would you like to have this a little or alot?

a little alot

SHOW CHILD FOOD CLUB BOX: If you were going to eat breakfast, would you like to eat this cereal?

no yes ---- IF YES: Would you like it a little or alot?

a little alot

SHOW CHILD POP TARTS BOX: Would you like to eat this? re.

no yes ----- IF YES: A little or alot?

a little alot

SHOW ALL THREE: Next time you are in the food store, which things do you think you will ask your mother to buy? PROBE: Any other(s)?

Pebbles Food Club Pop Tarts

SHOW VERTIBIRD BOX: If you could get a new toy for your birthday, would you like to have this one?

no yes ----- IF YES: Would you like to get it a little or a lot?

a little alot

OBSERVE -- [illegible] _____

OBSERVE -- WHICH TOY DID CHILD PICK FIRST: Tumblebug Spill Beans

FIGURE 15

SCHOOLS AND LOCATIONS OF EXPERIMENTAL SUBJECT POOL

School	Location	Number of Ss
Lewton Elementary School (K-5)	2000 Lewton Avenue, Lansing (urban middle class)	N=110
Main Street Elementary School (K-4)	1715 Main Street, Lansing (inner city working class)	N=112
Wexford Elementary School (K-5)	5217 Wexford Street, Lansing (suburban middle class)	N=100
Michigan Avenue Elementary School (K-5)	1019 Michigan Avenue, Lansing (inner city working class)	N=84
Cavanaugh Elementary School (K-4)	300 Cavanaugh Street, Lansing (urban middle class)	N=42
Eastminster Day Care Center (Preschool)	1315 Abbott Road, East Lansing (suburban middle class)	N=36
Happy Day Children's Center (Preschool)	743 Logan Street, Lansing (inner city working class	N=16
		Total N=500

00066

FIGURE 16

DISTRIBUTION OF SUBJECTS BY AGE AND RACE

Age:	White Ss N=291	Black Ss N=209
Three	3%	0%
Four	10	5
Five	11	11
Six	12	25
Seven	14	24
Eight	17	10
Nine	15	10
Ten	18	15
Mean age	7.25	7.12

FIGURE 17

DISTRIBUTION OF SUBJECTS IN TREATMENT AND MEASUREMENT CONDITIONS, BY ACE AND RACE

	Measurement Conditions:			
	During Viewing		After Viewing	
Treatment Conditions:	Monitored (N=250)	Not (N=250)	Interviewed (N=250)	Observed (N=250)
Content Manipulation A, tapes 1-3-5-7 (N=260)	N=130	N=130	N=130	N=130
Content Manipulation B, tapes 2-4-6-8 (N=120)	N=120	N=120	N=120	N=120
Dispersed Structure Manipulation, tapes 1-2-3-4 (N=264)	N=132	N=132	N=132	N=132
Clustered Structure Manipulation, tapes 5-6-7-8 (N=236)	N=118	N=118	N=118	N=118
Age Distribution:				
Younger children, aged 3-7 (N=281)	N=140	N=141	N=139	N=142
Older children, aged 8-10 (N=219)	N=110	N=109	N=111	N=108
Racial Distribution:				
White children (N=291)	N=146	N=145	N=150	N=141
Black children (N=209)	N=104	N=105	N=100	N=109

TABLE 1a: POPTARTS COMMERCIAL

EFFECTS OF PREMIUM OFFER ON ATTENTION, IRRITATION, ENJOYMENT AND VERBALIZATIONS

	Ad with Premium	Ad without Premium	
Mean Attention (1=low to 5=high)			
Overall	4.11	4.15	t=-.33 (p=.74)
Young	4.08	4.02	
Old	4.15	4.33	
Mean Irritation (1=low to 3=high)			
Overall	1.18	1.17	t= .21 (p=.83)
Young	1.23	1.21	
Old	1.12	1.12	
Mean Enjoyment (1=low to 3=high)			
Overall	1.50	1.40	t=1.37 (p=.17)
Young	1.49	1.38	
Old	1.50	1.43	
Verbalizations			
Content-related positive	9%	2%	
Content-related neutral	2%	4%	
Content-related negative	1%	1%	
Delivery-related positive	3%	2%	
Delivery-related neutral	1%	0%	
Delivery-related negative	0%	1%	
Unrelated talking	28%	16%	
Total relevant verbalizing	15%	9%	

1b: POPTARTS COMMERCIAL

EFFECTS OF PREMIUM OFFER ON LEARNING AND DESIRE

	Ad with premium	Ad without premium	
What things did they want you to buy in the TV commercials you saw? PROBE: Did you see any (other) ads about things to eat for breakfast?			
Recalled "Poptarts"	14%	13%	X^2=1.6
Recalled with probe	8%	4%	df=3
General description	4%	4%	p=.65
Not remembered	74%	79%	
(There was also a commercial for Kelloggs Poptarts.) Why do kids like to get Poptarts in the food store?			
Premium in the box	6%	1%	X^2=5.5
Other reasons	84%	86%	df=2
Don't know	10%	13%	p=.06
(If you were going to eat breakfast) would you like to eat this? (SHOW BOX) (Would you like to have this) a little or a lot?			
Wants a lot	83%	72%	X^2=4.5
Wants a little	12%	22%	df=2
Does not want	5%	6%	p=.10
Next time you are in the food store, which things (SHOW BOXES) do you think you will ask your mother to buy?			
Will ask for Poptarts	77%	77%	X^2=0.0
Poptarts not selected	23%	23%	df=1
			p=.91

1c. POPTARTS COMMERCIAL

INTERACTION EFFECTS OF PREMIUM OFFER AND SUBJECTS' AGE

	Young Ss		Old Ss	
	Premium	No	Premium	No
Why do kids like to get Poptarts in the food store?				
Premium in the box	4%	1%	8%	0%
Other reason	81	82	87	30
Don't know	15	17	5	10
Would you like to eat this? . . . a little or a lot?				
Wants a lot	84%	68%	81%	78%
Wants a little	13	25	10	18
Does not want	3	7	9	4
Which things do you think you will ask your mother to buy?				
Will ask for Poptarts	72%	77%	83%	76%
Poptarts not selected	28	23	17	24

TABLE 2a: BLOCKHEAD COMMERCIAL

EFFECTS OF EXTRAVAGANT VS. MODEST PRODUCT PERFORMANCE CLAIMS
ON ATTENTION, IRRITATION, ENJOYMENT, AND VERBALIZATIONS

	Extravagant Claim	Modest Claim	
Mean Attention (1=low to 5=high)			
Overall	4.35	3.90	t=4.65 (p=.001)
Young	4.25	3.75	
Old	4.48	4.12	
Mean Irritation (1=low to 3=high)			
Overall	1.16	1.24	t=-1.62 (p=.11)
Young	1.20	1.32	
Old	1.12	1.13	
Mean Enjoyment (1=low to 3=high)			
Overall	1.23	1.31	t=-1.40 (p=.16)
Young	1.21	1.36	
Old	1.25	1.24	
Verbalizations (percent making 1 or more)			
Content-related positive	4%	2%	
Content-related neutral	7%	6%	
Content-related negative	0%	0%	
Delivery-related positive	0%	0%	
Delivery-related neutral	0%	0%	
Delivery-related negative	1%	0%	
Unrelated talking	20%	23%	
Total relevant verbalizing	9%	8%	

2b: BLOCKHEAD COMMERCIAL

EFFECTS OF EXTRAVAGENT VS. MODEST PRODUCT PERFORMANCE CLAIMS ON LEARNING, EXPECTATIONS, AND AGGRESSIVE BEHAVIOR

	Extravagent claim	Modest Claim	
What things did they want you to buy in the TV commercials you saw? PROBE: Did you see any (other) ads about toys?			
Recalled "Blockhead"	8%	17%	$X^2=7.7$
Recalled with probe	4%	6%	df=3
General performance	23%	14%	p=.05
Not remembered	65%	63%	
How much fun do you think it would be to play with the Blockhead toy? Would you say a lot of fun, a little fun, or not much fun?			
A lot of fun	65%	70%	$X^2=1.3$
A little fun	22%	21%	df=2
Not much fun	13%	9%	p=.53
Remember the two kids playing with Blockhead in the commercial? Do you believe it is as much fun as they showed it would be?			
Yes	76%	83%	$X^2=1.2$
No	24%	17%	df=1
			p=.27
Do you think you could build a tower as high as the kids in the commercial, or do you think yours would be higher or lower as the one on TV?			
Higher	64%	55%	$X^2=3.4$
As high	10%	17%	df=2
Lower	26%	28%	p=.19

2b (CONTINUED)

	Extravagent claim	Modest Claim	
OBSERVER RATING OF CHILD ANGER WHILE PLAYING WITH BLOCKHEAD (display of irritation or indications of being upset or mad).			
Extensive/intense anger	0%	0%	X^2=1.7
Limited/mild anger display	19%	12%	df=1
No manifestations of anger	81%	88%	p=.19
OBSERVER RATING OF CHILD VERBAL AGGRESSION WHILE PLAYING WITH BLOCKHEAD (verbal act intended to injure target person or object).			
Heavy cursing/loud threats	2%	0%	X^2=1.7
Limited verbal attack	15%	10%	df=1
No manifestation at all	83%	90%	p=.19
OBSERVER RATING OF CHILD PHYSICAL AGGRESSION WHILE PLAYING WITH BLOCKHEAD (overt act intended to injure target person or object).			
Hitting/throwing blocks	1%	0%	X^2=.46
Slight pushing and shoving	5%	3%	df=1
No manifestation at all	94%	97%	p=.49
ANY DISPLAY OF AGGRESSION (anger, verbal or physical above)			
One or more displays of aggression	28%	18%	X^2=3.5 df=1
No manifestation at all	72	82	p=.07

2c. BLOCKHEAD COMMERCIAL

INTERACTION EFFECTS OF PRODUCT PERFORMANCE CLAIMS AND SUBJECTS' AGE

	Young Ss		Old Ss	
	Extra-vagant	Modest	Extra-vagant	Modest
How much fun do you think it would be to play with the Blockhead toy?				
A lot of fun	75%	68%	53%	71%
A little fun	13	17	32	27
Not much fun	12	15	15	2
Do you believe it is as much fun as they showed it would be?				
Yes	83%	78%	68%	88%
No	17	22	32	12
Do you think you could build a tower as high as the kids in the commercial?				
Higher	77%	62%	47%	45%
As high	8	10	12	25
Lower	15	28	41	31
OBSERVER RATING OF CHILD DISPLAY OF ANGER, VERBAL AGGRESSION OR PHYSICAL AGGRESSION:				
Any display	31%	20%	25%	16%
No manifestations	69	80	75	84

TABLE 3a: FLINTSTONES CEREAL COMMERCIAL

EFFECTS OF PROGRAM CONTEXT ON ATTENTION, IRRITATION, ENJOYMENT AND VERBALIZATIONS

	Flintstones Program	Bugs Bunny Program	
Mean Attention (1=low to 5=high)			
Overall	4.24	4.09	t=1.51 (p=.13)
Young	4.19	4.05	
Old	4.30	4.15	
Clustered	4.38	4.30	
Dispersed	4.12	3.91	
Mean Irritation (1=low to 3=high)			
Overall	1.16	1.19	t=-.72 (p=.47)
Young	1.18	1.24	
Old	1.12	1.11	
Clustered	1.13	1.18	
Dispersed	1.18	1.19	
Mean Enjoyment (1=low to 3=high)			
Overall	1.60	1.49	t=1.49 (p=.14)
Young	1.55	1.51	
Old	1.66	1.47	
Clustered	1.73	1.49	
Dispersed	1.50	1.49	
Verbalizations (percent making 1 or more)			
Content-related positive	7%	7%	
Content-related neutral	5%	5%	
Content-related negative	1%	1%	
Delivery-related positive	5%	5%	
Delivery-related neutral	4%	2%	
Delivery-related negative	1%	0%	
Unrelated talking	22%	21%	
Total relevant verbalizing	18%	15%	

3b: FLINTSTONES CEREAL COMMERCIAL

EFFECTS OF PROGRAM CONTEXT ON PRODUCT LEARNING AND DESIRE

	Flintstones program	Bugs Bunny program	
What things did they want you to buy in the TV commercials you saw? PROBE: Did you see any (other) ads about things to eat for breakfast?			
Recalled "Pebbles"	7%	7%	X^2=.7
Recalled with probe	6%	7%	df=3
General description	16%	12%	p=.87
Not remembered	71%	74%	
IF NOT MENTIONED: Do you remember seeing the Flintstones eating any cereal on TV?			
Yes	85%	98%	X^2=9.9
No	15%	2%	df=1
			p=.00
IF YES: Were they eating cereal in the cartoon or in the commercial, or aren't you sure?			
Eating in commercial	68%		
Eating in cartoon	23%		
Not sure where eating	9%		
If you were going to eat breakfast, would you like to have this (SHOW BOX) to eat? IF YES: Would you like to have this a little or a lot?			
Wants a lot	62%	44%	X^2=8.8
Wants a little	25%	32%	df=2
Does not want	13%	24%	p=.01
Next time you are in the foodstore, which things do you think you will ask your mother to buy?			
Will ask for Pebbles	63%	49%	X^2=4.7
Pebbles not selected	37%	51%	df=1
			p=.03

3c. FLINTSTONES CEREAL COMMERCIAL

INTERACTION EFFECTS OF PROGRAM CONTEXT AND SUBJECTS' AGE

	Young Ss		Old Ss	
	Flint-stones	Bugs Bunny	Flint-stones	Bugs Bunny
Were they eating cereal in the cartoon or the commercial?				
Eating in commercial	59%		80%	
Eating in cartoon	33		10	
Not sure where eating	8		10	
Would you like to eat this? . . . a little or a lot?				
Wants a lot	73%	45%	47%	45%
Wants a little	22	32	29	33
Does not want	5	23	24	22
Which things do you think you will ask your mother to buy?				
Will ask for Pebbles	76%	54%	47%	45%
Pebbles not selected	24	46	53	55

3d: FLINTSTONES CEREAL COMMERCIAL

IMPACT OF FLINTSTONE PROGRAM CONTEXT AND CLUSTERED VS. DISPERSED STRUCTURE

	Clustered	Dispersed
Were they eating cereal in the cartoon or in the commercial?		
Eating in commercial	64%	71%
Eating in cartoon	27	20
Not sure where eating	9	9
Would you like to eat this?....a little or a lot?		
Wants a lot	69%	56%
Wants a little	24	25
Does not want	7	19
Which things do you think you will ask your mother to buy?		
Will ask for Pebbles	68%	60%
Pebbles not selected	32	40

TABLE 4a: TUMBLEBUG COMMERCIAL

EFFECTS OF ACTORS' RACE ON ATTENTION, IRRITATION, ENJOYMENT AND VERBALIZATIONS

	White Actors	Black Actors	
Mean Attention (1=low to 5=high)			
Overall	4.52	4.41	t=.97 (p=.33)
Young	4.40	4.38	
Old	4.66	4.45	
White	4.69	4.51	
Black	4.26	4.27	
Mean Irritation (1=low to 3=high)			
Overall	1.13	1.13	t=.03 (p=.97)
Young	1.20	1.16	
Old	1.06	1.10	
White	1.11	1.14	
Black	1.16	1.12	
Mean Enjoyment (1=low to 3=high)			
Overall	1.32	1.29	t=.47 (p=.64)
Young	1.29	1.36	
Old	1.35	1.19	
White	1.36	1.33	
Black	1.27	1.23	
Verbalizations (percent making 1 or more)			
Content-related positive	4%	3%	
Content-related neutral	6%	5%	
Content-related negative	1%	1%	
Delivery-related positive	1%	0%	
Delivery-related neutral	1%	0%	
Delivery-related negative	0%	0%	
Unrelated talking	20%	20%	
Total relevant verbalizing	10%	7%	

4b: TUMBLEBUG COMMERCIAL

EFFECTS OF ACTORS' RACE ON LEARNING AND PREFERENCES

	White actors	Black actors	
What things did they want you to buy in the TV commercials you saw? PROBE: Did you see any (other) ads about toys?			
Recalled "Tumblebug"	15%	8%	$X^2=5.4$
Recalled with probe	3%	7%	df=3
General description	27%	23%	p=.15
Not remembered	55%	62%	
(Another commercial was for Tumblebug, the toy where the little bugs race down the slide). Why should you want to buy the Tumblebug?			
References to race	3%	6%	$X^2=1.6$
Its fun to play with	55%	50%	df=3
Other reasons	31%	31%	p=.67
Don't know	11%	13%	
Remember the two kids playing with the Tumblebug in the commercial? Can you tell me what they looked like?			
Racial description	10%	17%	$X^2=3.9$
Non-racial description	59%	48%	df=2
Don't know	31%	35%	p=.15
OBSERVATION OF WHICH TOY CHILD SELECTED TO PLAY WITH FIRST			
Played with Tumblebug	80%	73%	$X^2=1.5$
Played with Spill the Beans	20%	27%	df=1
			p=.47

4c. TUMBLEBUG COMMERCIAL

INTERACTION EFFECTS OF ACTORS' RACE AND SUBJECTS' AGE

	Young Ss		Old Ss	
	White Actors	Black Actors	White Actors	Black Actors
Why should you want to buy Tumblebug?				
References to race	2%	3%	3%	9%
Its fun to play with	52	47	58	51
Other reasons	30	30	34	36
Don't know	17	20	5	4
Remember the two kids playing with the Tumblebug in the commercial? Can you tell me what they looked like?				
Racial description	12%	15%	8%	18%
Non-racial description	45	52	74	43
Don't know	43	33	18	39
OBSERVATION OF WHICH TOY CHILD SELECTED TO PLAY WITH FIRST:				
Played with Tumblebug	74%	75%	88%	70%
Played with Spill the Beans	26	25	12	30

4d: TUMBLEBUG COMMERCIAL

INTERACTION EFFECTS OF ACTORS' RACE AND SUBJECTS' RACE ON LEARNING AND PREFERENCES

	White actors		Black actors	
	White Ss	Black Ss	White Ss	Black Ss
What things did they want you to buy in the TV commercials you saw? PROBE: Did you see any (other) ads about toys?				
Recalled "Tumblebug"	18%	9%	10%	6%
Recalled with probe	3%	4%	5%	13%
General description	22%	34%	23%	19%
Not remembered	57%	53%	62%	62%
(Another commercial was for Tumblebug, the toy where little bugs race down the slide.) Why should you want to buy Tumblebug?				
References to race	0%	6%	4%	8%
Its fun to play with	47%	66%	45%	57%
Other reasons	40%	19%	37%	24%
Don't know	13%	9%	14%	11%
Remember the two kids playing with the Tumblebug in the commercial? Can you tell me what they looked like?				
Racial description	8%	13%	14%	21%
Non-racial description	62%	53%	45%	51%
Don't know	30%	34%	41%	28%
OBSERVATION OF WHICH TOY CHILD SELECTED TO PLAY WITH FIRST				
Played with Tumblebug	78%	82%	78%	68%
Played with Spill the Beans	22%	18%	22%	32%

TABLE 5a: FROSTED FLAKES CEREAL COMMERCIAL

EFFECTS OF RATIONAL VS. EMOTIONAL THEME ON ATTENTION, IRRITATION, ENJOYMENT AND VERBALIZATIONS

	Rational Theme	Emotional Theme	
Mean Attention (1=low to 5=high)			
Overall	4.22	4.13	t=.80 (p=.42)
Young	3.98	3.96	
Old	4.50	4.36	
Mean Irritation (1=low to 3=high)			
Overall	1.26	1.23	t=.70 (p=.48)
Young	1.34	1.30	
Old	1.16	1.12	
Mean Enjoyment (1=low to 3=high)			
Overall	1.25	1.25	t=-.14 (p=.89)
Young	1.25	1.35	
Old	1.25	1.12	
Verbalizations (percent making 1 or more)			
Content-related positive	4%	2%	
Content-related neutral	4%	3%	
Content-related negative	1%	0%	
Delivery-related positive	1%	0%	
Delivery-related neutral	1%	1%	
Delivery-related negative	1%	0%	
Unrelated talking	25%	27%	
Total relevant verbalizing	9%	5%	

5b: FROSTED FLAKES CEREAL COMMERCIAL

EFFECTS OF RATIONAL VS. EMOTIONAL THEME ON LEARNING AND DESIRE

	Rational Theme	Emotional Theme	
What things did they want to buy in the TV commercials you saw? PROBE: Did you see any (other) ads about things to eat for breakfast?			
Recalled "Foodclub"	12%	14%	$X^2=3.5$
Recalled with probe	8%	8%	df=3
General description	33%	23%	p=.32
Not remembered	47%	55%	
(IF NOT REMEMBERED: Do you remember seeing a commercial for Food Club Frosted Flakes where a boy is eating cereal? IF REMEMBERED: You told me that you saw Food Club Frosted Flakes in the TV ad.) What did they tell you about this cereal? PROBE: Why should you eat it? What does it do for you?			
Healthful/good for you	29%	37%	$X^2=25.6$
Has vitamins	15%	7%	df=5
Helps do well in school	9%	1%	p=.00
Helps swimming	0%	10%	
Other reason	23%	22%	
Don't know	24%	23%	
Does Food Club Frosted Flakes have lots of vitamins in it?			
Yes	91%	93%	$X^2=.3$
No	9%	7%	df=1
			p=.61
Which vitamins does this cereal have in it?			
Named all four (ABCD)	35%	1%	$X^2=52.5$
Named two or three	12%	11%	df=3
Named one vitamin	2%	10%	p=.00
Don't know or wrong	51%	78%	

5b (CONTINUED)

	Rational Theme	Emotional Theme	
If you were going to eat breakfast, would you like to eat this cereal? (SHOW BOX) IF YES: Would you like it a little or a lot?			
Wants a lot	29%	33%	X^2=1.1
Wants a little	37%	39%	df=2
Does not want	34%	28%	p=.58
Next time you are in the food store, which things (SHOW BOXES) do you think you will ask your mother to buy?			
Will ask for Foodclub	24%	19%	X^2=.6
Foodclub not selected	76%	81%	df=1
			p=.44

5c. FROSTED FLAKES CEREAL COMMERCIAL

INTERACTION EFFECTS OF RATIONAL VS. EMOTIONAL THEME AND SUBJECTS' AGE

	Young Ss		Old Ss	
	Rational	Emotional	Rational	Emotional
What did they tell you about this cereal?				
Healthful/good for you	34%	38%	23%	35%
Has vitamins	7	6	24	10
Helps do well in school	4	0	13	2
Helps swimming	0	6	0	16
Other reason	26	20	20	23
Don't know	29	30	20	14
Does Food Club Frosted Flakes have lots of vitamins in it:				
Yes	88%	92%	93%	94%
No	12	8	7	6
Which vitamins does this cereal have?				
Named all four (ABCD)	15%	0%	57%	1%
Named two or three	9	6	15	15
Named one vitamin	1	8	3	12
Don't know or wrong	75	86	25	72
Would you like to eat this cereal? .... a little or a lot?				
Wants a lot	32%	32%	25%	31%
Wants a little	39	38	34	43
Does not want	29	30	41	26
Which things do you think you will ask your mother to buy?				
Will ask for Food Club	27%	19%	20%	20%
Food Club not selected	73	81	80	80

TABLE 6a: "INDIAN" COMMERCIAL

EFFECTS OF ANTI-POLLUTION MESSAGE ON ATTENTION, IRRITATION, ENJOYMENT AND VERBALIZATIONS

	Exposed to Indian Ad	Not Exposed*
Mean Attention (1=low to 5=high)		
Overall	3.75	4.09
Young	3.66	3.98
Old	3.88	4.24
Mean Irritation (1=low to 3=high)		
Overall	1.36	1.23
Young	1.40	1.29
Old	1.29	1.16
Mean Enjoyment (1=low to 3=high)		
Overall	1.28	1.34
Young	1.29	1.34
Old	1.26	1.35
Verbalizations (percent making 1 or more)		
Content-related positive	5%	4%
Content-related neutral	14%	4%
Content-related negative	3%	1%
Delivery-related positive	1%	1%
Delivery-related neutral	0%	1%
Delivery-related negative	1%	1%
Unrelated talking	35%	26%
Total relevant verbalizing	20%	10%

*Average response by subjects while viewing all seven other commercials.

6b: "INDIAN" COMMERCIAL

EFFECTS OF ANTI-POLLUTION MESSAGE ON LITTERING ATTITUDE AND BEHAVIOR

	Exposed to Indian ad	Not Exposed	
Lots of people have been talking about pollution and litterbugs these days. Do you think it is important for people to stop littering, or not so important? IF IMPORTANT: Is it sort of important, or really important?			
Really important	77%	74%	X^2=1.2
Sort of important	14%	13%	df=2
Not so important	9%	13%	p=.54
OBSERVATION OF WHAT CHILD DID WITH CANDY WRAPPER:			
Put in waste basket	25%	19%	X^2=8.6
Kept on self	38%	38%	df=3
Left on furniture	35%	32%	p=.04
Threw on floor	2%	11%	
IF CHILD EXPOSED TO INDIAN AD: One of the things you just saw on the program was an Indian in a canoe. Why did the Indian cry at the end?			
Sad about pollution	85%		
Non-pollution answer	7%		
Don't know	8%		

6c. "INDIAN" COMMERCIAL

INTERACTION EFFECTS OF ANTI-POLLUTION MESSAGE AND SUBJECTS' AGE

	Young Ss		Old Ss	
	Exposed	Not	Exposed	Not
Do you think it is important for people to stop littering?				
Really important	65%	63%	92%	88%
Sort of important	20	16	8	9
Not so important	15	21	0	3
OBSERVATION OF WHAT CHILD DID WITH CANDY WRAPPER:				
Put in waste basket	24%	15%	26%	23%
Kept on self	25	31	60	47
Left on furniture	48	38	14	25
Threw on floor	3	16	0	5
Why did the Indian cry at the end?				
Sad about pollution	76%		98%	
Non-pollution answer	12		2	
Don't know	12		0	

TABLE 7a: DRISTAN COMMERCIAL

EFFECTS OF DECONGESTANT MESSAGE ON ATTENTION, IRRITATION, ENJOYMENT AND VERBALIZATIONS

	Exposed to Dristan Ad	Not Exposed*
Mean Attention (1=low to 5=high)		
Overall	3.61	4.10
Young	3.38	3.99
Old	3.89	4.24
Mean Irritation (1=low to 3=high)		
Overall	1.47	1.22
Young	1.58	1.28
Old	1.35	1.16
Mean Enjoyment (1=low to 3=high)		
Overall	1.19	1.35
Young	1.11	1.35
Old	1.29	1.35
Verbalizations (percent making 1 or more)		
Content-related positive	1%	5%
Content-related neutral	1%	4%
Content-related negative	0%	1%
Delivery-related positive	0%	1%
Delivery-related neutral	0%	1%
Delivery-related negative	1%	1%
Unrelated talking	30%	26%
Total relevant verbalizing	1%	12%

*Average response by subjects while viewing all seven other commercials.

7b: DRISTAN COMMERCIAL

EFFECT OF DECONGESTANT MESSAGE ON INTENTIONS AND PERCEPTIONS

		Exposed to Dristan ad	Not Exposed	
Now I want to ask you a few questions about what happens when you get sick. If you got a stuffed-up nose, what would you do for it?				
First response:	Take Dristan	5%	2%	X^2=6.6
	Take other pill	10%	6%	df=4
	Take non-pill medicine	17%	21%	p=.15
	Rest/stay home	1%	6%	
	Something else/don't know	67%	65%	
If you got sick, and got some medicine from the drug store, how fast would you get better?				
	Short period (day or less)	28%	28%	X^2=.1
	Longer period (more than day)	45%	44%	df=2
	Other/depends/don't know	27%	28%	p=.97
In general, how often do people have colds, stuffed-up noses, or stomach aches? Would you say all the time, lots of times, sometimes, or not very often?				
	All the time	8%	4%	X^2=2.7
	Lots of times	13%	10%	df=3
	Sometimes	48%	57%	p=.43
	Not very often	31%	29%	
If someone was sick and took something they saw on a TV commercial, how much would it help them...would you say alot, a little, or not much?				
	Alot	46%	42%	X^2=1.1
	A little	30%	28%	df=2
	Not much	24%	30%	p=.58
Generally, when you have a problem of some kind, how long does it take to solve it?				
	Short period (day or less)	40%	45%	X^2=3.0
	Long period (more than day)	38%	28%	df=2
	Other/depends/don't know	22%	27%	p=.22

7c. DRISTAN COMMERCIAL

INTERACTION EFFECTS OF DECONGESTANT MESSAGE AND SUBJECTS' AGE

	Young Ss		Old Ss	
	Exposed	Not	Exposed	Not
If you got a stuffed-up nose, what would you do for it?				
Take Dristan	3%	0%	7%	4%
Take other pill	6	9	13	4
Take medicine	15	15	20	29
Rest/stay home	1	8	2	4
Other/don't know	75	68	58	59
If you got sick and got some medicine from the drug store, how fast would you get better?				
Short period	36%	36%	20%	18%
Long period	35	40	57	49
Other/don't know	29	24	23	33
In general, how often do people have colds, stuffed-up noses, or stomach aches?				
All the time	6%	8%	10%	0%
Lots of times	12	10	15	12
Sometimes	44	48	51	68
Not very often	38	34	24	20
If someone was sick and took something they saw on a TV commercial, how much would it help them?				
A lot	55%	38%	36%	42%
A little	20	27	40	24
Not much	25	35	24	24
Generally, when you have a problem of some kind, how long does it take to solve it?				
Short period	36%	33%	43%	59%
Long period	39	35	37	18
Other, don't know	25	32	20	23

TABLE 8a: VERTIBIRD COMMERCIAL

EFFECTS OF PRODUCT ACCESSORY DISCLAIMER ON ATTENTION, IRRITATION, ENJOYMENT AND VERBALIZATIONS

	Audio/Video Disclaimer	Video Disclaimer	
Mean Attention (1=low to 5=high)			
Overall	3.62	3.84	t=1.92 (p=.06)
Young	3.58	3.70	
Old	3.67	4.01	
Mean Irritation (1=low to 3=high)			
Overall	1.40	1.35	t=-.79 (p=.43)
Young	1.44	1.40	
Old	1.33	1.29	
Mean Enjoyment (1=low to 3=high)			
Overall	1.36	1.31	t=-.82 (p=.41)
Young	1.34	1.26	
Old	1.40	1.37	
Verbalizations (percent making 1 or more)			
Content-related positive	9%	6%	
Content-related neutral	6%	5%	
Content-related negative	3%	1%	
Delivery-related positive	2%	0%	
Delivery-related neutral	0%	1%	
Delivery-related negative	1%	0%	
Unrelated talking	39%	33%	
Total relevant verbalizing	17%	11%	

8b: VERTIBIRD COMMERCIAL

EFFECTS OF PRODUCT ACCESSORY DISCLAIMER ON LEARNING AND DESIRE

	Audio/Video Disclaimer	Video Disclaimer	
What things did they want you to buy in the TV commercials you saw? PROBE: Did you see any (other) ads about toys?			
Recalled "Vertibird"	20%	15%	X^2=2.0
Recalled with probe	5%	9%	df=3
General description	17%	16%	p=.57
Not remembered	58%	60%	
(In another commercial, some kids were playing with the Vertibird helecopter.) When you buy Vertibird in the store, what isn't included? PROBE: Do you get batteries when you buy Vertibird?			
Mentioned batteries	43%	18%	X^2=18.9
Mentioned with probe	16%	28%	df=3
Wrong answer	28%	35%	p=.00
Don't know	13%	19%	
IF MENTIONS THAT BATTERIES NOT INCLUDED: How do you know that batteries are not included?			
Read statement	6%	29%	X^2=22.5
Heard statement	75%	17%	df=2
Can't remember source	19%	54%	p=.00
If you could get a new toy for your birthday, would you like to have this one? (SHOW VERTIBIRD) IF YES: Would you like to get this a little or a lot?			
Wants a lot	57%	71%	X^2=6.8
Wants a little	17	7	df=2
Does not want	26	22	p=.03

8c. VERTIBIRD COMMERCIAL

INTERACTION EFFECTS OF PRODUCT ACCESSORY DISCLAIMER AND SUBJECTS' AGE

	Young Ss		Old Ss	
	A-V	Video	A-V	Video
When you buy Vertibird in the store, what isn't included?				
Mentioned batteries	26%	9%	65%	28%
Mentioned with probe	15	28	16	29
Wrong answer	39	46	14	23
Don't know	20	17	6	20
IF MENTIONS THAT BATTERIES NOT INCLUDED: How do you know that batteries are not included?				
Read statement	0%	0%	9%	41%
Heard statement	59	33	82	12
Can't remember	41	67	9	47
If you could get a new toy for your birthday, would you like to have this one?				
Wants a lot	67%	81%	47%	58%
Wants a little	13	4	20	12
Does not want	20	15	33	30

TABLE 9a: STRUCTURE

EFFECTS OF CLUSTERED VS. DISPERSED STRUCTURE ON ATTENTION IRRITATION, ENJOYMENT AND VERBALIZATIONS*

	Clustered	Dispersed	
Mean Attention (1=low to 5=high)			
Overall	4.16	3.99	t=2.24 (p=.03)
Young	4.03	3.89	
Old	4.35	4.11	
Mean Irritation (1=low to 3=high)			
Overall	1.25	1.24	t= .03 (p=.98)
Young	1.31	1.29	
Old	1.15	1.19	
Mean Enjoyment (1=low to 3=high)			
Overall	1.36	1.33	t= .68 (p=.50)
Young	1.38	1.31	
Old	1.33	1.36	
Verbalizations (percent making 1 or more)			
Content-related positive	4%	4%	
Content-related neutral	5%	5%	
Content-related negative	1%	1%	
Delivery-related positive	1%	1%	
Delivery-related neutral	1%	1%	
Delivery-related negative	0%	1%	
Unrelated talking	25%	27%	
Total relevant verbalizing	10%	11%	

* All statistics are averaged across the seven advertising slots on the stimulus tape.

TABLE 9a (CONTINUED)

Mean Attention	Overall		Young		Old	
	Clus-tered	Dis-persed	Clus-tered	Dis persed	Clus-tered	Dis persed
Advertisment slot #1	4.03	3.85	3.94	3.77	4.15	3.96
Advertisment slot #2	4.25	4.04	4.12	3.94	4.43	4.15
Advertisment slot #3	4.28	4.05	4.16	3.97	4.44	4.14
Advertisment slot #4	4.42	4.21	4.36	4.18	4.51	4.31
Advertisment slot #5	4.33	4.31	4.16	4.21	4.57	4.45
Advertisment slot #6	4.03	3.84	3.80	3.69	4.34	4.02
Advertisment slot #7	3.83	3.60	3.70	3.47	4.01	3.76

Overall Mean Attention Graph

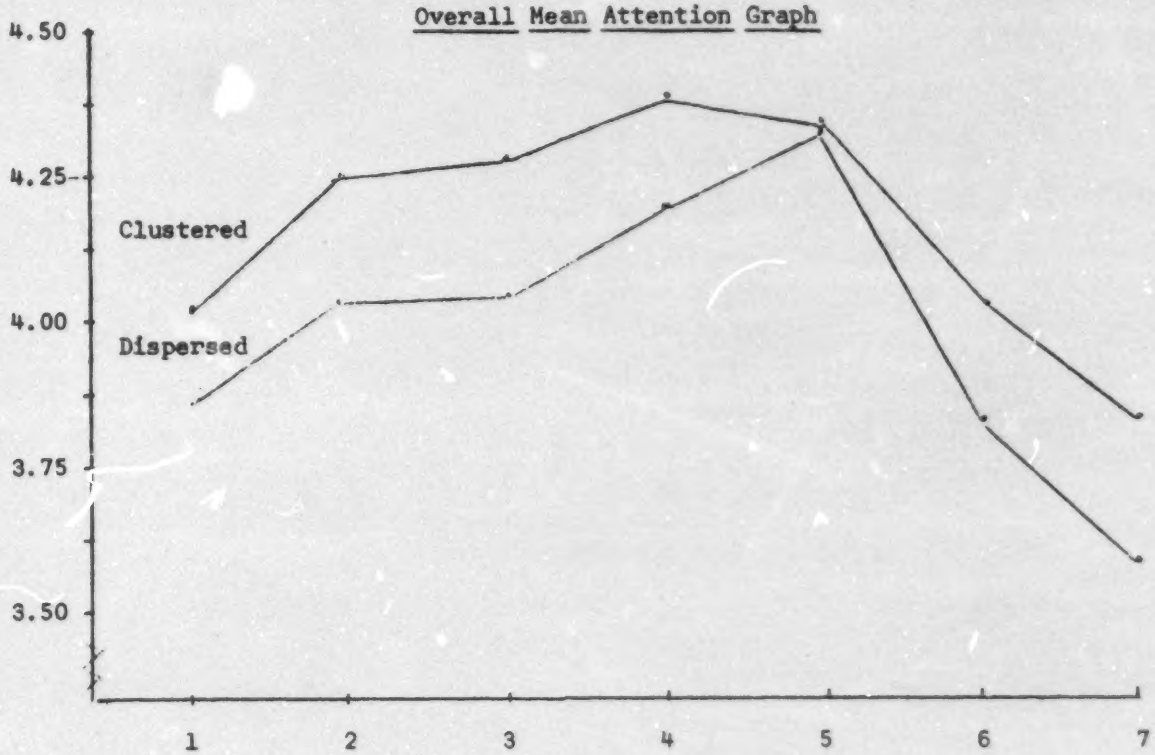


TABLE 9a (CONTINUED)

Mean Irritation	Clustered	Dispersed
Advertisment slot #1	1.30	1.25
Advertisment slot #2	1.24	1.14
Advertisment slot #3	1.20	1.17
Advertisment slot #4	1.16	1.14
Advertisment slot #5	1.21	1.17
Advertisment slot #6	1.27	1.39
Advertisment slot #7	1.34	1.45
Mean Enjoyment		
Advertisment slot #1	1.39	1.40
Advertisment slot #2	1.35	1.37
Advertisment slot #3	1.43	1.39
Advertisment slot #4	1.49	1.38
Advertisment slot #5	1.29	1.27
Advertisment slot #6	1.25	1.24
Advertisment slot #7	1.30	1.26

9b: STRUCTURE

EFFECTS OF CLUSTERED VS. DISPERSED STRUCTURE ON LEARNING AND DESIRE

	Clustered	Dispersed	
What things did they want you to buy in the TV commercials you saw? (Average percentage across seven ads)			
Recalled brand name	9%	12%	
Recalled with probe	6	5	
General description	16	16	
Not remembered	69	67	
Why do kids like to get Poptarts in the food store? (Ss exposed to premium only)			
Premium in the box	6%	7%	X^2=2.6
Other reasons	80	87	df=2
Don't know	14	6	p= .28
Remember the two kids playing with the Tumblebug in the commercial? Can you tell me what they looked like?			
Racial description	13%	13%	X^2=2.6
Non-racial description	58	49	df=2
Don't know	29	38	p= .28
Does Food Club Frosted Flakes have lots of vitamins in it? (Ss exposed to rational theme only)			
Yes	92%	93%	X^2= .02
No	8	7	df=1
			p= .89
Which vitamins does this cereal have? (Ss exposed to rational theme only)			
Named all four (ABCD)	35%	36%	X^2= .4
Named two or three	13	10	df=3
Named one vitamin	1	3	p= .94
Don't know or wrong	51	51	
Why did the Indian cry at the end?			
Sad about pollution	91%	80%	X^2=3.0
Non-pollution reason	4	11	df=2
Don't know	5	9	p= .22
If you got a stuffed-up nose, what would you do for it?			
Take Dristan	4%	6%	X^2=1.0
Take other pill	9	11	df=4
Take medicine	19	15	p= .91
Reat/stay home	1	1	
Other/don't know	67	68	

9b (CONTINUED)

	Clustered	Dispersed	
When you buy Vertibird in the store, what isn't included?			
Mentioned batteries	33%	28%	X^2=3.0
Mentioned with probe	25	19	df=3
Wrong answer	28	35	p= .39
Don't know	14	18	
How do you know that batteries are not included?			
Read statement	7%	5%	X^2=2.7
Heard statement	27	19	df=2
Can't remember/NA above	66	76	p= .26
If you could get a new toy for your birthday, would you like to have this one (Vertibird)?			
Wants a lot	66%	63%	X^2= .6
Wants a little	10	13	df=2
Does not want	24	24	p= .75
OBSERVATION OF WHICH TOY CHILD SELECTED TO PLAY WITH FIRST:			
Played with Tumblebug	77%	76%	X^2= .1 df=1 p= .82
Which things do you think you will ask your mother to buy?			
Will ask for Poptarts	81%	74%	X^2=1.4, p=.24
Will ask for Pebbles	57%	57%	X^2=.01, p=.92
Will ask for Food club	25%	19%	X^2=.8 , p=.37
Did you like the commercials? IF YES: Did you like them a little or a lot?			
Liked a lot	60%	54%	X^2=2.3
Liked a little	33	42	df=2
Didn't like	7	4	p= .32

TABLE 9c: STRUCTURE

INTERACTION EFFECTS OF CLUSTERED VS. DISPERSED STRUCTURE AND SUBJECTS' AGE

		Young Ss		Old Ss	
		Clustered	Dispersed	Clustered	Dispersed
What things did they want you to buy in the TV commercials you saw? (Average percentage across seven ads)					
	Recalled brand name	4%	7%	15%	19%
	Recalled with probe	4	5	9	6
	General description	16	17	17	16
	Not remembered	76	71	59	59
Why do kids like to get Poptarts in the food store? (Ss exposed to premium only)					
	Premium in the box	4%	7%	10%	6%
	Other reasons	75	86	85	89
	Don't know	21	7	5	5
Remember the two kids playing with the Tumblebug in the commercial? Can you tell me what they looked like?					
	Racial description	13%	13%	11%	14%
	Non-racial description	55	43	62	57
	Don't know	32	44	27	29
Does Food Club Frosted Flakes have lots of vitamins in it? (Ss exposed to rational theme only)					
	Yes	92%	89%	91%	97%
	No	8	11	9	3
Which vitamins does this cereal have? (Ss exposed to rational theme only)					
	Named all four (ABCD)	16%	14%	52%	61%
	Named two or three	9	9	19	12
	Named one vitamin	0	3	2	4
	Don't know or wrong	75	74	27	23
Why did the Indian cry at the end?					
	Sad about pollution	82%	72%	100%	96%
	Non-pollution reason	7	15	0	4
	Don't know	11	13	0	0
If you got a stuffed up nose, what would you do for it?					
	Take Dristan	0%	5%	6%	9%
	Take other pill	4	9	13	13
	Take medicine	21	9	18	22
	Rest/Stay home	1	1	2	0
	Other/Don't know	74	76	61	56

TABLE 9c (CONTINUED)

	Young Ss		Old Ss	
	Clus-tered	Dis-persed	Clus-tered	Dis-persed
When you buy Vertibird in the store, what isn't included?				
Mentioned batteries	20%	15%	45%	45%
Mentioned with probe	28	16	23	22
Wrong answer	37	48	19	19
Don't know	15	21	13	14
How do you know that batteries are not included?				
Read statement	0%	0%	13%	12%
Heard statement	17	11	40	31
Can't remember/NA above	83	89	47	57
If you could get a new toy for your birthday, would you like to have this one (Vertibird)?				
Wants a lot	77%	73%	54%	52%
Wants a little	7	9	13	18
Does not want	16	18	33	30
Which things do you think you will ask your motner to buy?				
Will ask for Poptarts	75%	74%	88%	73%
Will ask for Pebbles	68%	63%	44%	48%
Will ask for Foodclud	27%	20%	23%	18%
OBSERVATION OF WHICH TOY CHILD SELECTED TO PLAY WITH FIRST:				
Played with Tumblebug	70%	78%	85%	75%
Did you like the commercials? If YES: Did you like them a little or a lot?				
Liked a lot	67%	59%	53%	50%
Liked a little	23	37	43	45
Didn't like	10	4	4	5

9d: STRUCTURE

EFFECTS OF CLUSTERED VS. DISPERSED STRUCTURE ON RESPONSES TO PROGRAMMING

			Clustered	Dispersed	
Mean Attention during first half of program (1=low to 5=high)					
	Overall		4.70	4.67	
	Flintstones cartoon		4.54	4.56	t=.07 (p=.95)
	Bugs Bunny cartoon		4.87	4.79	t=-1.24 (p=.22)
Attention at start of second half					
	Overall		4.14	4.11	
	Flintstones cartoon		4.19	4.32	t=.83 (p=.41)
	Bugs Bunny cartoon		4.08	3.90	t=-1.10 (p=.28)
Attention during second half of program					
	Overall		4.79	4.80	
	Flintstones cartoon		4.63	4.70	t=.62 (p=.54)
	Bugs Bunny cartoon		4.96	4.90	t=-1.09 (p=.28)
Total attention	Overall		4.54	4.53	
Number of seconds to full attention (start of second half)					
	Overall	0 seconds	79%	75%	
		1-8 secs.	12	13	
		9 or more	9	12	
	Flintstones	0 seconds	88%	83%	X^2= .6
		1-8 secs.	7	11	df=2
		9 or more	5	6	p= .73
	Bugs Bunny	0 seconds	70%	66%	X^2=1.3
		1-8 secs.	17	15	df=2
		9 or more	13	19	p= .53

		Clustered	Dispersed	
Mean Irritation during first half of program (1=low to 3=high)				
	Overall	1.04	1.08	
	Flintstones cartoon	1.03	1.14	t=2.72 (p=.01)
	Bugs Bunny cartoon	1.06	1.03	t=-1.12 (p=.27)
Irritation at start of second half				
	Overall	1.28	1.32	
	Flintstones cartoon	1.26	1.34	t=.99 (p=.32)
	Bugs Bunny cartoon	1.30	1.31	t=.02 (p=.99)
Irritation during second half of programm				
	Overall	1.11	1.08	
	Flintstones cartoon	1.15	1.11	t=-.81 (p=.42)
	Bugs Bunny cartoon	1.07	1.06	t=-.21 (p=.83)
Total irritation	Overall	1.14	1.16	

		Clustered	Dispersed	
Mean Enjoyment during first half of program (1=low to 3=high)				
	Overall	1.40	1.34	
	Flintstones cartoon	1.41	1.23	t=-1.91 (p=.06)
	Bugs Bunny cartoon	1.40	1.45	t=.44 (p=.66)
Enjoyment at start of second half				
	Overall	1.37	1.28	
	Flintstones cartoon	1.33	1.13	t=-2.41 (p=.02)
	Bugs Bunny cartoon	1.42	1.43	t=.10 (p=.92)
Enjoyment during second half of program				
	Overall	1.34	1.35	
	Flintstones cartoon	1.31	1.31	t=-.01 (p=.99)
	Bugs Bunny cartoon	1.38	1.40	t=.13 (p=.90)
Total enjoyment	Overall	1.37	1.32	
Verbalizations				
	Cartoon-related positive	4%	3%	
	Cartoon-related neutral	4%	2%	
	Cartoon-related negative	1%	0%	
	Unrelated talking	15%	10%	
	Total relevant verbalizing	7%	4%	

9e: STRUCTURE

EFFECTS OF CLUSTERED VS. DISPERSED STRUCTURE ON PROGRAM LEARNING AND LIKING

		Clustered	Dispersed	
IF WATCHED FLINTSTONES: Can you tell me what happened to Fred in the Flintstones cartoon? (1=poor description to 7=excellent)				
	Rating = 7	20%	17%	
	6	18	20	
	5	19	27	
	4	8	7	
	3	18	10	
	2	5	12	
	1	12	7	
Mean rating of description:				
	Overall	4.52	4.64	
	Young	3.97	3.83	
	Old	5.19	5.45	
Did you like the cartoon(s)? IF YES: Did you like it a little bit or a lot?				
	Overall: Liked a lot	87%	93%	X^2=2.2
	Liked a little	13	7	df=1
	No, didn't like	0	0	p=.15
	Young: Liked a lot	92%	91%	X^2=.01
	Liked a little	8	9	df=1
	No, didn't like	0	0	p=.92
	Old: Liked a lot	81%	91%	X^2=3.8
	Liked a little	19	9	df=1
	No, didn't like	0	0	p=.05

TABLE 10a

EFFECTS OF SUBJECTS' AGE AND RACE ON ATTENTION, IRRITATION, ENJOYMENT AND VERBALIZATIONS*

	Subjects' Age		Subjects' Race	
	Young	Old	White	Black
Average Mean Attention, all ads (1=low to 5=high)	3.96	4.22	4.22	3.85
	t=3.31 (p=.001)		t=-4.75 (p=.001)	
Average Mean Irritation, all ads (1=low to 3=high)	1.30	1.17	1.23	1.27
	t=-4.45 (p=.001)		t=1.47 (p=.14)	
Average Mean Enjoyment, all ads (1=low to 3=high)	1.34	1.35	1.35	1.32
	t=.13 (p=.90)		t=-.67 (p=.51)	
Average Verbalizations, all ads (percent making 1 or more)				
Content-related positive	3%	3%	3%	3%
Content-related neutral	4%	3%	3%	4%
Content-related negative	1%	1%	1%	1%
Delivery-related positive	1%	1%	1%	1%
Delivery-related neutral	1%	1%	1%	1%
Delivery-related negative	0%	1%	0%	1%
Unrelated talking	10%	9%	9%	11%
Total relevant verbalizing	11%	9%	9%	11%

*The mean levels on each response variable are averaged across the seven commercial slots in the experimental stimulus tape.

TABLE 10b

EFFECTS OF SUBJECTS' AGE AND RACE ON LEARNING AND DESIRE

	Subjects' Age		Subjects' Race	
	Young	Old	White	Black
What things did they want you to buy in the TV commercials you saw? (Average percentage across seven ads)				
Recalled brand name	6%	18%	13%	5%
Recalled with probe	4	7	5	5
General description	17	16	16	18
Not remembered	73	59	66	68
Why do kids like to get Poptarts in the food store? (Ss exposed to premium only)				
Premium in the box	4%	8%	8%	4%
Other reasons	81	87	79	90
Don't know	15	5	13	6
Remember the two kids playing with the Tumblebug in the commercial? Can you tell me what they looked like?				
Racial description	13%	13%	11%	17%
Non-racial description	48	59	54	52
Don't know	39	28	35	31
Does Food Club Frosted Flakes have lots of vitamins in it? (Ss exposed to rational theme only)				
Yes	88%	93%	92%	92%
No	12	7	8	8
Which vitamins does this cereal have?				
Named all four (ABCD)	15%	57%	44%	21%
Named two or three	9	15	10	13
Named one vitamin	1	3	0	6
Don't know or wrong	75	25	46	60
Why did the Indian cry at the end?				
Sad about pollution	76%	98%	88%	81%
Non-pollution reason	12	2	3	15
Don't know	12	0	9	4
If you got a stuffed-up nose, what would you do for it?				
Take Dristan	3%	7%	8%	0%
Take other pill	6	13	12	8
Take medicine	15	20	18	15
Rest/Stay home	1	2	1	2
Other/don't know	75	58	61	75

TABLE 10b (CONTINUED)

	Subjects' Age		Subjects' Race	
	Young	Old	White	Black
When you buy Vertibird in the store, what isn't included?				
Mentioned batteries	17%	45%	35%	23%
Mentioned with probe	22	22	25	17
Wrong answer	43	19	22	46
Don't know	18	14	18	14
How do you know that batteries are not incuuded?				
Read statement	0%	13%	5%	7%
Hear statement	13	35	26	18
Can't remember	87	52	69	75
If you could get a new toy for your birthday, would you like to have this one (Vertibird)?				
Wants a lot	74%	53%	58%	72%
Wants a little	8	16	14	10
Does not want	18	31	28	18
Which things do you think you will ask your mother to buy?				
Will ask for Poptarts	74%	80%	77%	76%
Will ask for Pebbles	65%	46%	55%	59%
Will ask for Foodclub	23%	20%	18%	26%
Did you like the commercials? IF YES: Did you like them a little bit or a lot?				
Liked a lot	62%	51%	50%	67%
Liked a little	31	44	42	31
Didn't like	7	5	8	2